

SCOOP: PIONEER AC-3 RECEIVER

VIDEO

INCORPORATING SOUND & IMAGE

MAGAZINE TM

Special Report
DIGITAL HOLLYWOOD

VIDEO
BEST
OF THE YEAR

15th ANNUAL
AWARDS ISSUE

The Big Picture

6 Rear-Projectors
Tested & Compared

GEAR OF
THE YEAR

20 Best Products!

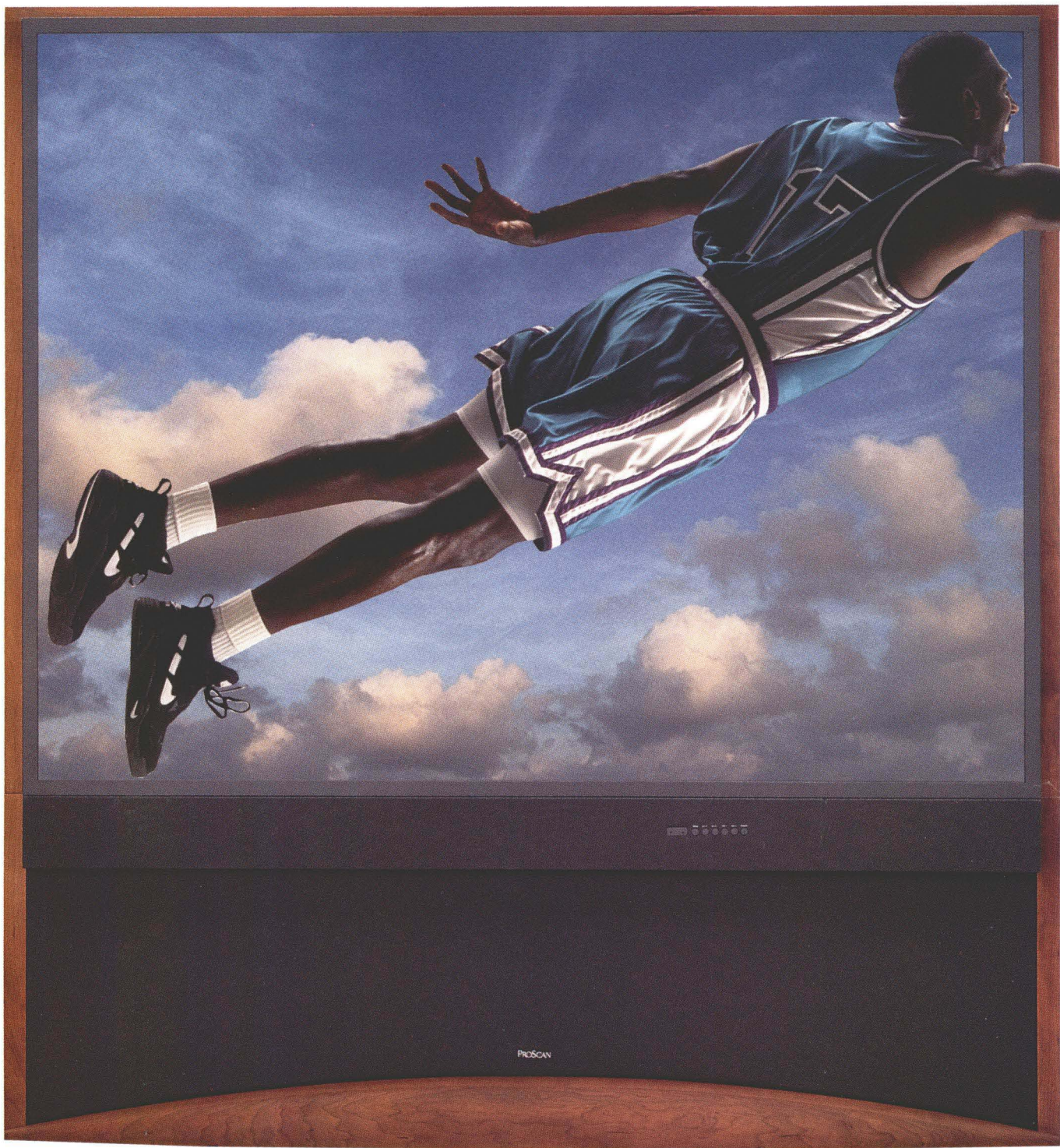
INTERVIEW

FCC Chairman
Reed Hundt

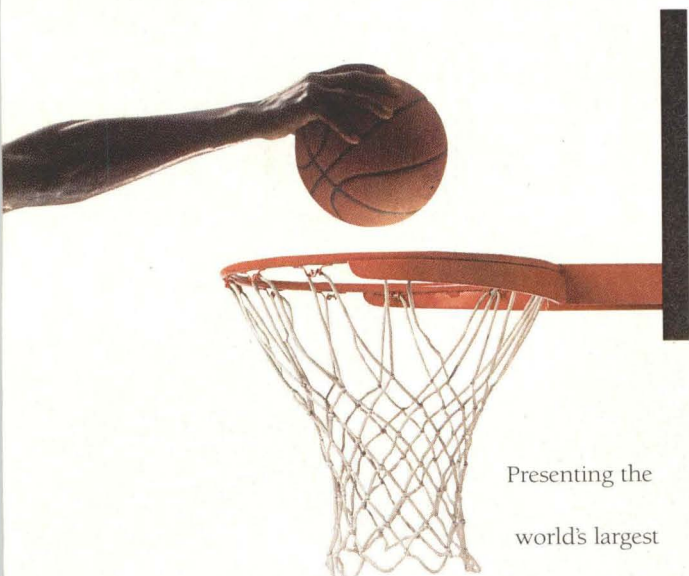
NEW TECHNOLOGY

NEC's Silicon Video
DVD's Potential





ENGINEERING THE
WORLD'S FIRST 80" PROSCAN TV
WAS A TALL ORDER.



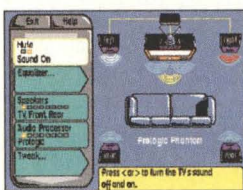
Presenting the
world's largest
rear projection television: the incredible
new ProScan 80" diagonal. New *advanced 9"*
tube/optics system (compared to 7" tubes in

Advanced 9"
optics drive the
brightest picture
that ProScan
TV has ever
produced.



conventional projection
sets) propel a picture
that's over 50% brighter
than previous 7" designs.

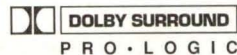
That's an industry first. And a ProScan
exclusive. But that's just for starters. Because
a new *improved wideband*
amplifier combines with
61 watts to deliver unpar-
alleled picture power. And
with improved ProScan
audio, there's sound to
go with the fury: a room-
shaking system that



The friendly new graphical user
interface makes ProScan easier
than ever to navigate.

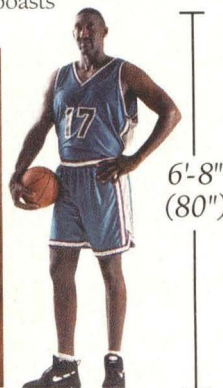
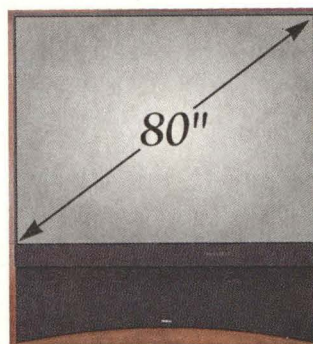
catapults the built-in *Dolby¹ Pro Logic*

Surround System to new



heights (as well as depths). But don't let all this

power fool you. ProScan also boasts



ProScan 80" diagonal PS80690
There's never been a bigger—or better—ProScan.

a friendly new *bit-mapped graphical user inter-*
face with point-and-select simplicity that rivals
the helpful graphical icons of today's personal
computers. And new digital
technology in the ProScan tuner
allows *PIX+ Twin Tuner™ Picture-in-*



The new ProScan
Simple Remote
makes today's
most advanced
technology
easy to
grasp.

Picture effects, including *Picture-Outside-*
Picture and *Split-Screen*.

If you're tired of TV performance claims
that generate more heat than light, you owe
yourself a look at the bright new ProScan
Projection TV. The reviews—like the picture—
are glowing.

PROSCAN
So advanced. Yet so simple.

AN RCA ENTERTAINMENT PRODUCT

"Cambridge SoundWorks Home Theater For



For many speaker designers and manufacturers, home theater is a relatively new idea. But the people who work at Cambridge SoundWorks - including our cofounder Henry Kloss (who also founded AR, KLH and Advent) - have been involved with the concept of home theater from the beginning. In 1969 (years before VCRs and cable TV), Henry Kloss founded Advent, the company that introduced the first home theater audio/video systems - complete with big-screen TVs and digital surround sound. We have had an ongoing relationship with the people at Dolby Laboratories, creators of Dolby Surround Sound, since Henry Kloss introduced the first consumer products with Dolby noise

standard for home theater components.

Because we sell carefully matched and tested home theater speaker systems factory-direct, with no expensive middlemen, you can save hundreds of dollars. We believe the products on these pages represent the country's best values in high performance home theater components. Audio critics, and thousands of satisfied customers, agree.

Stereo Review said

"Cambridge SoundWorks manufactures loudspeakers



Our Surround Speakers

magnetically shielded so they can be placed near a TV or computer monitor. *Center/Surround IV* is a compact, one-way speaker identical to our *Ensemble® IV* satellite speakers. **\$49.99.** *Center/Surround III* is a small, affordable two-way speaker. **\$79.99.** *Center Channel* is identical to a Cambridge SoundWorks *Ensemble* satellite (but with magnetic shielding). **\$159.99.** *Center Channel Plus* uses an ultra-low, ultra-wide design that is ideal for placement above (or, with optional support stand, below) a TV monitor. **\$222.99.**

Surround Speakers

Cambridge SoundWorks makes two "dipole radiator" surround sound speakers. Dolby Laboratories recommends dipole radiator speakers for use as surround speakers. *The Surround* has a very high power handling capacity and is often selected for "high end" surround sound systems. *Audio*, describing a system that included *The Surround* said "In many ways the surround sensation was every bit as good as far more expensive installations." **\$399.99 pr.** The smaller *The Surround II* is arguably the country's best value in a dipole radiator speaker. **\$249.99 pr.**



Our Center Channel Speakers

reduction over 20 years ago. And now at Cambridge SoundWorks we believe we have set a new price-to-performance

that provide exceptional sound quality at affordable prices." *Audio* suggested that we "may have the best value in the world."

Center Channel Speakers

Cambridge SoundWorks manufactures four speakers for use as center channel speakers in Dolby Pro Logic home theater systems. All four are



Our Popcorn

Opens The Way To Killer An Affordable Price."

Stereo Review

Powered Subwoofers

The original *Powered Subwoofer* by Cambridge SoundWorks consists of a heavy-duty 12" woofer housed in an acoustic-suspension cabinet with a 140-watt amplifier and a built-in electronic crossover. *Stereo Review* said it provides "deep powerful bass...31.5 Hz bass output was obtainable at a room-shaking level... they open the way to having a 'killer' system for an affordable price." **\$699.99.**



Our Most Popular Home Theater Speaker System.

Home Theater Speaker Systems

We have assembled a number of home theater speaker systems that consist of center channel, surround and main stereo speakers. The combination we show here is our best seller. It includes our critically acclaimed *Ensemble* dual subwoofer satellite speaker system, our *Center Channel Plus* and a pair of our best surround speakers, *The Surround*.

You could spend hundreds more than its **\$1,219.97** price without improving performance.

Complete Home Theater Sound Systems

We offer a range of complete home theater surround sound systems, ranging from **\$649.98 to \$3,069.93**. The system shown here

Our Featured Home Theater Sound System



Our Powered Subwoofers

Our *Slave Subwoofer* uses the same woofer driver and cabinet, but does not include the amplifier or crossover. It can only be used in conjunction with the *Powered Subwoofer*. **\$299.99.** The new *Powered Subwoofer II* uses a 120-watt amplifier with an 8" woofer. **\$399.99.**

is incredibly easy to hook up and to use. It consists of an Aiwa center unit that includes a Dolby Pro Logic receiver, CD changer, dual cassette deck, remote control – and our *Ensemble IV Home Theater* speaker system. It sounds great, fits into any room, and sells for an introductory price of only **\$899.99.**

Factory-Direct Savings

The speakers in this ad are available only directly from Cambridge SoundWorks, and through cost-efficient Best Buy stores – so you can save hundreds of dollars. Order them, then listen in your own homes. If you aren't completely satisfied, return them within 30 days for a full refund.



To Order Factory Direct, For a Free Catalog, Or For The Nearest Store Location, Call
1-800-FOR-HIFI
(1-800-367-4434)

**CAMBRIDGE
SOUNDWORKS®**

Critically Acclaimed. Factory-Direct.

311 Needham Street, Suite 130JAN, Newton, MA 02164
Tel: 1-800-367-4434 Fax: 617-332-9229
Canada: 1-800-525-4434
Outside U.S. or Canada: 617-332-5936

© 1995 Cambridge SoundWorks. REnsemble is a registered trademark of Cambridge SoundWorks, Inc. KLH is a trademark of KLH, Inc. AR and Advent are trademarks of International Jensen Inc. Cambridge SoundWorks is not affiliated with KLH, Advent or AR.



CIRCLE NO. 29 ON READER SERVICE CARD

JUST ADD **BACARDI**



Bacardi rum. Made in Puerto Rico. BACARDI, THE BAT DEVICE, AND THE WAVE DEVICE ARE REGISTERED TRADEMARKS OF BACARDI & COMPANY LIMITED. ©1995 BACARDI IMPORTS, INC., MIAMI FL. 40% ALC. BY VOL.



VIDEOTM

MAGAZINE

FEATURES



17

27 VIDEO REWIND

The year in review, 20 best products
Showtime: Best movies and CD-ROMs

39 PUBLIC ADVOCATE #1

FCC Chairman Reed Hundt, the VIDEO interview
The Deregulator: Senator John McCain

46 THE BIG PICTURE

Six relatively affordable rear-projectors tested



107

HOME THEATER VIDEOTESTS

55 PIONEER VSX-99 A/V receiver with AC-3 decoding

60 INFINITY COMPOSITIONS Home-theater speaker set

VIDEO FILE

82 GENERATION EXCELLENT DV and generation loss

84 NEW TECH Sunpak auto pan/tilt head

87 VIDEOTEST Canon ES5000 Hi8 camcorder

90 VIDEOTEST JVC HR-S7200U S-VHS VCR

93 VIDEOTEST Videonics Edit Suite editor

MULTIMEDIA

105 FAST FORWARD Matsushita picks up 3DO's M2

106 NEW TECH Jazz Jakarta graphics accelerator

106 SOFTWARE Phantasmagoria, ESPN Extreme Games

108 SHORTWARE Sega Nomad portable 16-bit game system



49

DEPARTMENTS

6 CHANNEL ONE The right stuff

8 FEEDBACK Reality bites, DVD looms

11 FAST FORWARD Social contracts, spectrum auctions

16 NEW TECH ProScan DSS system, JVC rear-projector

22 DIGITAL REALITY A glimpse of our silicon future

25 IMAGE CONSCIENCE DVD's ultimate potential

97 SOFTWARE Apollo 13, Batman Forever, Star Wars Trilogy

140 OFF THE AIR Snowbound with your VCR

ON THE COVER Sony KV-32XBR100 (page 30), JVC GR-SZ9 (page 29), Toshiba M-761 (page 28), Mitsubishi M-V7057 (page 34), Pioneer VSX-99 (page 29), and Optimus LX-5 (page 30)

COVER PHOTO Tony Cordoza



84



36



SPECIAL REPORT DIGITAL HOLLYWOOD

From the editors of *Premiere*

65 WIRING THE 'WOOD

Digital technology comes to Hollywood

68 FLEX TIME

The race to create a digital human

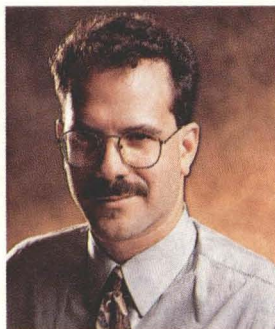
76 LAST CHANCE TO SEE

Digital tech is creating endangered species

80 WHO KNEW?

Scenes that technology made possible

The Right Stuff



■ WHILE WE'RE NOT USUALLY MUCH FOR RITUAL, a palpable sense of solemnity pervaded our offices as we endeavored to select the best products of the past year—a task the editors of VIDEO have gamely tackled, in one form or another, for the past 15 years. On one hand, it was a matter of so many components, so little time. But we also felt compelled to grapple with the harpies of ambiguity in an effort to define "best." ■ Some among us felt it was a simple black-and-white affair that could be objectively measured with the color analyzer we used to test rear-projection TVs (page 46) or the Macbeth chart we used to rate generation loss in camcorder formats (page 82). Others pressed that subtle degrees of performance are lost in the casual crucible of the living room, and that profound nods to ergonomics make more of a mark on real-world users of the gear we test. The passion with which these opposing views were argued convinced us, in the end, to consider both positions as we made our choices. You can read all about them in "Video Rewind" (page 27), which also includes a pointed look back at 1995, one of the busiest and best years—by any definition—in memory for video enthusiasts. ■ The task of selecting bests stirred some sympathy within us for Reed Hundt, chairman of the FCC, and for John McCain, the Republican senator from Arizona; both are interviewed by Chuck Tannert in "Public Advocate #1" (page 39). Though the denizens of our nation's capital are often viewed with mistrust or even loathing, we couldn't help but acknowledge the difficulty of the jobs they've taken upon themselves. ■ What's best for America? Should broadcasters be forced to air more educational and value-driven programming for children? Is it best to cut federal support for public television in the interest of deficit reduction? As 1995 turns into 1996, decisions on these and other critical issues will be made. In this election year, you have our pledge that we'll keep you informed of what—and who—needs watching even as we help you decide what to watch it all on. ■

■ It is with great pleasure that we welcome Joe Kane to VIDEO as a regular contributor. In his role as president of the Imaging Science Foundation, Joe is well known as a leading expert on and champion of the video industry. We're confident that his "Image Conscience" column (page 25) will enlighten you even as it furthers the cause of image quality. ■

Bill Wolfe

VIDEO

BILL WOLFE
Editor-in-Chief

Executive Editor MARC HOROWITZ
Technical Editor LANCELOT BRAITHWAITE

Art Director LAURA SUTCLIFFE
Managing Editor MIKE METTLER

Senior Editor PETER BARRY
Associate Editor CHUCK TANNERT

Associate Art Director MI KHOO
Associate Managing Editor JOSEF KREBS
Assistant Art Director GARY FRENCH

Project Coordinator BARBARA AIKEN
Database Manager JOSÉ L. GARCIA

Contributors Stewart Applegath, Michael Desmond, M. Faust, Pete Hisey, Joe Kane, Ken Korman, Daniel Kumin, Timothy Liebe, Kevin Miller, Mel Neuhaus, Tom Nossaine, Ken C. Pohlmann, Cliff Roh, Andy Wickstrom, James K. Willcox

TONY CATALANO
Vice President and Group Publisher

CONSUMER ELECTRONICS GROUP ADVERTISING
Publisher, VIDEO: Jay Rosenfield 212.767.6062
VP and Associate Publisher: Scott Constantine 212.767.6346
Regional VP/Ad Director, East Coast: Charles L. P. Watson 212.767.6038
Regional Account Manager, East Coast: Christine B. Forhez 212.767.6025
Account Executive: Penny Price 212.767.6077
Midwest Advertising Manager: Jerry Stoeckigt 312.923.4804
Regional VP/Ad Director, West Coast: Bob Meth 213.954.4831
West Coast Advertising Manager: Paula Mayeri 213.954.4830
West Coast Sales Assistant: Nikki Parker
Assistant to the Publisher: Aline J. Pulley
Promotion Coordinator: Dominique A. Leupi
Operations Manager: Sylvia Correa
Advertising Coordinator: Adele Ferraioli-Kalter
Sales Assistant: Yvonne Telesford
National Record-Label Sales Representatives: The Mitchell Advertising Group (MAG Inc.)
Mitch Herskowitz 212.490.1715
Steve Gross 212.490.1895

Subscription Information 815.734.1283

Production Director: Patti Burns
Production Manager: Gary M. Krystofiak
General Manager: Greg Roperti
Business Manager: Christine Z. Maillet
Newsstand Sales Director: Margaret Hamilton



VIDEO Magazine (TM)
IS PUBLISHED BY
HACHETTE FILIPACCHI
MAGAZINES, INC.



Chairman: Daniel Filipacchi
President, CEO, & COO: David J. Pecker
Executive VP, Editorial Director: Jean-Louis Ginibre
Senior VP, Global Advertising: Paul DuCharme
President, Hachette Filipacchi New Media: Paul De Benedictis
Senior VP, Director of Corporate Sales: Nicholas Matarazzo
Senior VP, CFO, & Treasurer: John T. O'Connor
VP, Marketing Director, Corporate Creative Service Director: Lynn Chaiken
VP, General Counsel: Catherine Flickinger
VP, Manufacturing & Distribution: Anthony Romano
VP, Circulation: David W. Leckey
VP, Research & Marketing Services: Susan Smollens
VP, Communications & Special Projects: Keith Estabrook
VP, Magazine Development: Marcia Sachar
Creative Production Director, Global Marketing: Jean Pierre Labatut
Senior VP, Corporate Sales, Detroit: H.E. (Bud) Allen

Can't program your VCR? Let our team of M.I.T. graduates do it for you.

All information is
constantly beamed
into VideoGuide.

Works with or
without cable and
with any TV.

Scroll through
7 days of TV
programming.
To record a show
just press the
little blue button
on your remote.
That's it.

ProgramGuide		Record List	Next Day
Monday	9:00 PM	9:30 PM	10:00 PM
abc 5	Abandoned and Deceived		
O 4	Murphy Brown	Cybill	Chicago Hope
NBC 7	Ray Alexander: A Menu for Murder		
Fox 25	Medicine Ball		
HBO	Searching for Bobby Fischer		News
ESPN	Basketball: NI...	Basketball: Tournament Champ...	Judicial Conse...
CNN	Larry King Live		World News

CONFIRMED: This show is set to record Once. To record this show Regularly or to Remove it from the record schedule, press the left action button to view the Record List.

REMINDER: Place a tape in your VCR and leave your VCR turned OFF.

The VideoGuide
remote. Change
channels. Scan
through 7 days of
listings. Control
the volume. Or click
over to SportsGuide
or NewsGuide.

We've put our higher education to good use. We've figured out a way for you to program your VCR with the touch of a button. Honest. It's called VideoGuide. Scan through 7 days of TV programming. Check out the electronic newspaper or get up-to-the-minute sports scores. Pretty neat, huh? So pick one up today. It's cheaper than going back to college.

VideoGuide
It's about time.

UNDER \$100 AT THESE STORES:

RADIOSHACK, INCREDIBLE UNIVERSE, ABC WAREHOUSE, BERNIE'S, BGE HOME PRODUCTS, KEN CRANE'S, LECHMERE, LUSKIN'S, MCDUFF, P.C. RICHARD AND TWEETER ETC. <http://www.vgi.com>



FREE Audio Catalog

At Cambridge SoundWorks we make unique, critically-acclaimed speakers and music systems designed by Henry Kloss (founder of AR, KLH & Advent). We sell them—and components from companies like Sony, Pioneer, Philips, Carver and others—factory-direct, with no expensive middlemen. Call today and find out why *Audio* magazine said we may have “the best value in the world.”

- Call toll-free for factory-direct savings.
- Save hundreds on components and systems from Cambridge SoundWorks, Sony, Pioneer, AIWA, Harman Kardon, Philips, Carver and more.
- Audio experts will answer your questions before and after you buy, 8AM-Midnight (ET), 365 days a year—even holidays.
- 30-Day Total Satisfaction Guarantee on all products.
- 7-Year Parts & Labor Speaker Warranty.



“Best Buy.”
PC Magazine

Add our award-winning \$219.99 SoundWorks system to your computer, radio, TV, or Walkman for room-filling sound and powerful bass.

1-800-FOR-HIFI
Critically-Acclaimed. Factory Direct.

**CAMBRIDGE
SOUNDWORKS®**

311 Needham Street, Suite 130 JAN, Newton, MA 02164
Tel: 1-800-367-4434 Fax: 617-332-9229
Canada: 1-800-525-4434 Outside U.S. or Canada: 617-332-5936
©1995 Cambridge SoundWorks.

FEEDBACK

ALTERNATE REALITY

Manufacturers provide us with big high-resolution TVs so movies and other programs come alive in our homes, but then TV broadcasters superimpose call-signs, decorative borders, news flashes, Windows-like overlays, and split-screen effects that diminish the true-to-life images. Manufacturers have developed surround-sound systems, AC-3, and THX so you can feel like you're in the concert hall or in the middle of the movie scene, but movie producers dub, loop, and create artificial soundtracks, while recording companies use musicians who are never in the same room together or use computers to simulate instruments, eliminating all feeling of presence. What's the use of owning playback systems that can reproduce reality when no one records it or broadcasts it?

Eugene Phillip

Great Falls, VA
Phillipe@ncr.disa.mil

LOOSE CHANGE

I have a complete audio/video theater, and I own over 300 VHS tapes and 120 laserdiscs. I built an extensive LD collection because I felt the high quality and the durability of the medium was worth it. Now my LD player and my expensive LD collection are soon to be made obsolete by DVD. I'm all for improving technology, but the lack of compatibility has me baffled; the manufacturers are cutting loose their loyal customers and setting them adrift. I feel like I own an orphan Betamax VCR . . . only much worse.

Vinton C. Vint, MD

vvcvint@mem.po.com

There's no reason you can't keep playing the LDs you own on your LD player, and you can decide to buy new movies on VHS, LD, or, if you choose to purchase a DVD player, on DVD.

—Ed.

Are any of the manufacturers talking about building a DVD player that'll also spin 12-inch LDs? I hope Pioneer

is, considering that they're the main supporter/distributor of LDs.

T. Paradiso
Saginaw, MI

As reported in “Fast Forward” (page 11), Pioneer has indeed shown a combi-player that spins LDs, DVDs, and CDs.

—Ed.

SUBSTANCE ABUSE?

I don't like the number of full-page ads in the “new” VIDEO—70 pages in the September issue alone. There is very little substance remaining in VIDEO.

Dave McNary
Haines, AK

Advertising contributes significantly to a magazine's fiscal health, and since only healthy magazines will survive in the '90s, we're pleased that the advertising community supports VIDEO. An immediate benefit to readers is that the advertising stampede has been accompanied by increases in pages devoted to editorial: The five issues preceding the acquisition averaged roughly 46 editorial pages, while the six issues since the acquisition have averaged roughly 60 editorial pages—an average of 14 pages more “substance” per issue.

—Ed.

TIME IS MONEY

I enjoyed Ken Pohlmann's candor in his test of Sony's SAS-AD1 [“VIDEO Test”], especially his comments about installation. And I found his column on MPEG and DSS [“Digital Reality,” September 1995] very informative. As a techie, I told my friends way back in the '70s that the world was going digital. If only I'd put my money where my mouth was!

Don Bohringer

don_bohringer@qmgate.anl.gov

VIDEO welcomes your
comments and suggestions

MAIL

VIDEO, “Feedback”

1633 Broadway, 45th floor
New York, NY 10019

EMAIL

VideoMag@aol.com

PRICE WATERSHED

I'm really hacked off with the price of laserdiscs. Our local Best Buy offered the entire *Star Wars Trilogy*—letterboxed and THX-approved—on VHS for \$29.95. The local merchant who deals in laserdiscs wanted \$59.95 for each of the three movies. I eventually ordered the discs from Ken Crane's mail-order outfit for \$47.98 each. All in all, the laserdisc consumer is being ripped off.

James Newins
Topeka, KS

The LD format's superiority justifies a premium over VHS, but we agree that the premiums routinely charged by LD distributors are excessive. As reported in "Fast Forward" (page 11), home video distributors are currently debating DVD pricing, and there's a chance that even A-level movies may cost only about \$20. —Ed.

CITY LIGHTS

Cool those ultra-ultra video/hi-fi articles—the products are too expensive and become obsolete fast. I really enjoy "Feedback," "Fast Forward," "Digital Reality," and "VIDEO Tests."

Herb Siegel
New York City

REMOTE CHANCE

I recently purchased a Panasonic PV-4561 VCR and discovered that no universal or programmable remote can be set to control any of its functions. I saw no such comment in your review of the PV-4564 ["Shortware," September 1995]. Shame on both you and Matsushita!

CB Caldwell
Alpine, CA

Panasonic says that their remote codes changed with the '94 product line; older universals won't "know" that, but newer universals will. —Ed.

GUIDED MISSIVES

In your recent discussion of on-screen program guides ["Guided Tour," "Fast Forward," September 1995], you stated that Gemstar's Guide Plus+ offers

a live window similar to a PIP, and that StarSight doesn't. Though that's generally true, all of Zenith's new StarSight-equipped TV sets do include a live video window in their on-screen listings.

Gregg Gronowski
VP, Product Management
Zenith
Glenview, IL

Regarding your review of Samsung's VR8905 VCR ["Shortware," October 1995], PBS stations reach 98 percent of the country, and on cable StarSight data is sent via Nickelodeon and MTV. StarSight also generates its own time stamp, and therefore doesn't rely on XDS (Extended Data Services) for that information.

Steve Panosian
National Marketing Manager
Video Products
Samsung
Ridgefield Park, NJ

GET BACK, JACK

In your review of JVC's GR-SZ9 ["VIDEO Test," September 1995], you state that there's no headphone jack. But there is—JVC has hidden it, along with the remote-pause and edit jacks, under a rubber plug located at the rear of the cam's body.

Allen Goldman
Miami

HEAR HERE

I rented *Rob Roy* on laserdisc, wanting to see how the AC-3 soundtrack would interact with my Pro Logic system. My system had no trouble, and overall sound quality was at least as good as I've ever heard! Why didn't I hear any audio problems?

Paul M. DuPont
Hatboro, PA

AC-3 discs are only problematic with older LD players that don't have PCM digital audio sections. Note that you weren't listening to AC-3, however—since you don't have an AC-3-ready LD player and an AC-3 decoder, your system was playing the disc's Dolby Surround soundtrack. —Ed.

Ken Crane's LaserDisc SuperStore

Ken Crane's Is The Largest
Laser Disc Mail Order
Retailer In The U.S.

We Stock Every Title!

- Fastest Availability On New Titles!
- Most Orders Shipped Same Day!
- 20% Discount On All Titles!
- Free 2nd Day Air UPS Shipping In The Continental U.S.A.
- Visa, Mastercard, Discover, AMEX, Checks, And C.O.D.
- \$1.50 Handling Charge Per Order Shipped.

NOW SAVE 20% OFF

Suggested Retail On

- Every Pre-Ordered New Release
- Every Title In Stock
- Every Back-Order

**Includes FREE
2nd Day Air Shipping**

PHONE US AT...

1-800-624-3078

1-800-626-1768

1-714-892-8369

(Fax Number)

For A Free Catalog
**Write Or Visit
Our SuperStore**

Ken Crane's LaserDisc
15251 Beach Blvd.
Westminster, CA 92683

HAVE YOU OUTGROWN TELEVISION



TOSHIBA

0% Financing
No interest. No payments* until February 1997
on selected Toshiba TheaterView® SuperTUBE™ TVs and VCRs.
See dealer for details.
*During the Same As Cash promotional period payments are not required; however, finance charges will accrue. If the promotional purchase is paid in full prior to the due date on the January 1997 billing statement, all finance charges will be waived. If not, all accrued charges will remain in the balance. Standard Discount will apply.

If deep down inside you secretly long for a heart-pounding, eye-popping home entertainment experience, you haven't outgrown TV, you've just outgrown your television set.

Toshiba presents TheaterView®. An unprecedented line of projection TVs with eight distinct models that offer astounding image and sound quality. Immeasurable excitement. And one technological breakthrough after another.

Imagine brilliant, crystal-clear images. Our High Contrast Dark

Screen maximizes color depth and richness - for a breathtaking picture in four different screen sizes, from 48" to 61", and two formats, conventional and widescreen.

Discover dramatic sound with TheaterView's built-in 4-channel Dolby® ProLogic® and Digital Sound Processing. With an incredible 68 watts of total audio power, it lets outstanding sound quality literally explode from the screen. Turning your living room into a theater, a

THEATERVIEW®
AS GOOD AS TELEVISION GETS™

concert hall, even a stadium. All in a cabinet so slim, it takes up less depth than a regular 27" set, allowing it to fit in any room.

Best of all, TheaterView not only lets you experience cable, satellite, VCR and videodisc systems today, it's ready now for whatever tomorrow brings.

Toshiba TheaterView. It's as good as television gets.

In Touch with Tomorrow
TOSHIBA

Toshiba America Consumer Products, Inc., 82 Totowa Road, Wayne, NJ 07470

TheaterView is a registered trademark of Toshiba America Consumer Products, Inc.

SuperTUBE is a trademark of Toshiba Corp.

Dolby and ProLogic are registered trademarks of Dolby Laboratories Licensing Corp.



social studies

Broadcasters, media giants, and the FCC are debating whether the government has the right to impose so-called "social contracts" on TV broadcasters as a

condition for the commission's approval of broadcast license transfers and renewals. At issue is the amount of programming suitable for children. The debate has created yet more dissension within the

already-embattled FCC.

FCC Commissioner James Quello recently accused Chairman Reed Hundt of "administrative extortion," alleging that Hundt sought to coerce Westinghouse Broadcasting into making a "voluntary" pledge to air 3 hours of educational and informational children's programming per week on CBS. Without the pledge, Quello says, Hundt would've tried to keep the FCC from approving Westinghouse's \$5.4-billion bid to purchase the network.

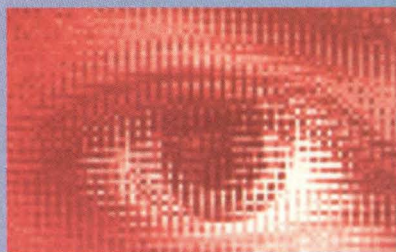
Quello asserts that Hundt is unconstitutionally using his position to further

a personal agenda. Hundt denies any wrongdoing, and says Quello is merely politicking for his own benefit.

Hundt has stated for the record that, as part of its role as watchdog of the public interest, the FCC should work with others to rate broadcasters' efforts to provide educational programming and punish those that don't meet minimum requirements. If a broadcaster receives a "flunking" grade, Hundt told VIDEO, they should be put on probation for a year; if they receive a failing grade in consecutive evaluations, they should lose their broadcast license. [See "Public Advocate #1," page 39, for an extensive interview with Hundt.]

● Disney, which will become a broadcaster if their \$19-billion offer to purchase Cap Cities/ABC is approved, has also spoken out on the subject. Company spokesmen told the FCC they won't bow to proponents of social contracts, saying that no one should have the right to force their own social agenda on broadcasters. They also laughed off implications that Disney wouldn't fulfill their public-interest responsibilities.

—Chuck Tannert



dvd watch

Despite initial projections, specs for the unified DVD format hadn't been completed at presstime. The delay suggests that negotiations are stuck, possibly on major technical issues, royalty questions, or both, and may mean that first-generation players won't hit in 1996 after all.

The latest reports from Japan and Europe indicate that first-generation players may cost as much as \$600, \$700, or even \$800, rather than the \$500 often cited as the target that'd attract

consumer interest. On the other hand, a Thomson spokesman reiterated his company's belief that a Fall 1996 intro and

a \$499 sticker for their first model were likely. In any case, displays at fall conventions in Japan were crowded with DVD prototypes.

JVC, Matsushita (parent company of Panasonic), Mitsubishi, Pioneer, and Toshiba showed SD-format models, while Sony had MMCD models on display. Pioneer made the biggest splash with a combi-player that spins DVDs, LDs, and CDs; spokesmen said the company plans to offer it along with first-generation DVD-only players. They also demonstrated a DVD

player equipped with a blue laser that spins a 10-GB disc.

● Software distributors are still pondering the interrelated issues of DVD-movie pricing and rentability. Warner Home Video currently appears to be alone in strongly advocating low sale prices (possibly in the neighborhood of \$20) for all DVD titles. Other distributors appear to prefer high sale pricing for most titles, which would offer no obstacles to renting.

On executives' minds: the specter of the hard-to-rent laserdisc and its relative lack of success as a format, and the odds of consumers actually purchasing the marginal titles that make up the majority of any studio's annual offerings.

—Bill Wolfe

cam stake

Exciting new DV-format digital camcorders were on display at fall conventions in Japan. JVC's GR-DV1 has a pull-out viewfinder and weighs only 1.1 pounds

THE NUMBER

4

Number of VHS movies purchased annually by the average American household.

SOURCE: Veronic, Suhler & Associates

with its battery and a cassette; digital special effects can be accessed during recording and playback. The DV1 has one 570,000-pixel CCD image sensor, 10X optical



and 100X digital zoom, and image stabilization. JVC expects to offer the cam in

the United States this spring.

Panasonic showed a step-down model from its PV-DV1000 ["VIDEO Test," December 1995]. The NV-DR1 has a 4-inch, 112,000-pixel LCD monitor and weighs 2.2 pounds with its battery and a cassette. Image sensing is handled by one 580,000-pixel CCD, and 10X optical and 20X digital zoom are onboard. Accessories include a video printer that capitalizes on the DV format's still-picture mode and a modem for transmitting images over phone lines.

Sharp unveiled a Digital ViewCam with a 5-inch, 224,600-pixel LCD monitor and a digital interface intended to accommodate computer-managed editing. The 2.6-pound cam uses three CCDs with 410,000-pixel resolution and features image stabilization, a zoom mic, preset and manual shooting modes, and 12X

optical and 30X digital zoom.

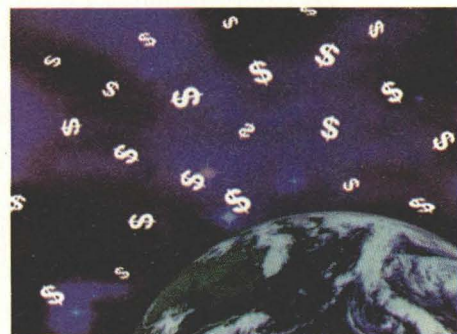
● The electronics industry has developed a standard for measuring the low-light sensitivity of camcorders. EIA-639 applies to all types of video cameras and camcorders, including VHS, S-VHS, VHS-C, S-VHS-C, 8mm, Hi8, and DV models. The standard, which manufacturers will follow on a voluntary basis beginning with new-for-'96 models, was based on performance in five areas: luminance level, black level, luminance S/N, chroma level, and resolution. Consumers are advised to look for the "measured by EIA standard" proviso when comparing low-light figures.

The task force that developed the standard is considering work on other camcorder parameters, including battery life.

—BW

fire sale

Under fire from the Senate, the FCC recently ruled that the 110-degree orbital slot formerly



licensed to Advanced Communications for DBS use would be auctioned. Initially, the FCC planned to sell AC's slot to a group affiliated with PrimeStar, the DBS service owned by a group of cable-TV giants, including TCI. The FCC's action sets a precedent that may put an end to spectrum handouts; in one scenario, all but public-access spectrum will be auctioned in the future. Pols say that proceeds from auctions will be used to help reduce the federal deficit.

Senator John McCain (R-AZ) spearheaded the move to put a full-court press on the FCC. FCC Chairman Reed Hundt praised his commission's ruling, stating that auctions are the best way to distribute spectrum. [See "Public Advocate #1," page 39, for interviews with Hundt and McCain.]

Jim Gray, PrimeStar's chairman and CEO, wasn't pleased with the FCC's ruling. "The decision jeopardizes PrimeStar's plans to expand into the high-power DBS arena in 1996," he says. "The ruling entrenches existing providers who now

scene and heard

The soundtracks of many older classic movies have



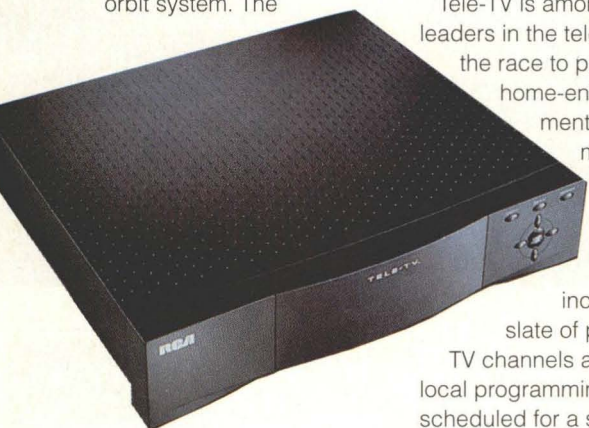
never been available to the public, and in some cases the master tapes are rotting away in movie-studio vaults. An alliance between Turner Classic Movies and Rhino Records, the noted reissues record label, seeks to change that. Among the gems Rhino has released so far are *That's Entertainment!* (\$90), a six-CD box-set companion to the three-film MGM anthology that's due to debut soon as AC-3-encoded laserdiscs. *Mickey & Judy* (\$65) is a four-disc set culled from

four Busby Berkeley-directed MGM musicals starring Mickey Rooney and Judy Garland: *Babes in Arms* (1939), *Strike Up the Band* (1940), *Babes on Broadway* (1941), and *Girl Crazy* (1943). *The Wizard of Oz* (\$32), an 82-song two-disc set, boasts the first-ever release of Herbert Stothart's Oscar-winning score. And then there's *Doctor Zhivago* (\$16), which won a Best Original Score Oscar for Maurice Jarre in 1965 and includes recording-session outtakes. —Mike Mettler

monopolize high-power DBS and could permanently limit competition in this area."

The one-day auction of the 110-degree slot, in which the high bid takes all, is scheduled to be held on January 18. Heavy-hitters such as MCI are expected to attend.

● AT&T, GE, and Hughes, among others, are planning to launch ka-band satellite services for consumers by the millennium's end. According to applications on file at the FCC, the systems would consist of at least 52 geostationary satellites plus an 840-satellite Teledisc low-earth orbit system. The



services may be used to provide all types of entertainment programming as well as information.

● Possibly foreshadowing events in the United States, Europe appears to have put high-definition television (HDTV) on the back burner in favor of standard-definition digital TV. European broadcasters agree with some U.S. critics, saying the entry-level cost to the consumer will be too high, limiting the number of HDTV viewers and thereby making the expense of upgrading the broadcast infrastructure

impossible to justify. European broadcasters say they'll reevaluate their position as the advanced-TV market matures. —CT

unwired

Thomson, the French parent of RCA, ProScan, and GE, has inked a deal with Tele-TV, a consortium owned by telco-giants Nynex, Pacific Telesis, and Bell Atlantic, to supply digital set-top boxes. The boxes will work like a DSS receiver, decoding the bit streams delivered via microwave in Tele-TV's upcoming digital 100-channel "wireless-cable" system.

Tele-TV is among the leaders in the telco field in the race to provide

home-entertainment programming. The consortium's service, which will include a full

slate of premium TV channels as well as local programming, is scheduled for a summer rollout. Initial hardware packages will include a small rooftop antenna; as more homes are wired with fiber-optic lines, interactive services like home shopping and video-on-demand will be offered.

Thomson's box employs an MPEG-2 video decoder, a 2,400-baud modem, and Apple's Power PC processor, which has 4 Mb of memory. The box can also decode Dolby Surround AC-3 and Philips' Musicam multichannel digital audio. Other features include an on-screen program guide and a data port for computer or videogame

nodes well

AT&T Microsystems, AT&T Network Systems, Broadband Technologies, and Fujitsu Network Transmission are deploying a video chipset that's said to enable telcos to deliver video, audio, and data from neighborhood nodes to homes over existing copper and coaxial cable.

The chips allow a data rate of 51.84 Mbps into the home and 1.65 Mbps back to the network; a Fujitsu spokesman says that the 1.65-Mbps

"back-feed" can easily accommodate interactive services. The companies will test the chips in projects in Florida, France, and Singapore, and the Digital Audio-Visual Council expects to include the technology in their standard for switched digital video (SDV). —BW



hookup. Tele-TV expects that the box will run "under \$400." —Marc Horowitz

v-files

Bruce Wright takes a bite out of **horror-movie history** in the 170-page *Nightwalkers: Gothic Horror Movies* (\$17.95; Taylor Publishing, 214.819.8100). . . . **DirectTV** announced that **Daewoo**, **Samsung**, and **Sanyo** have been licensed to manufacture DSS systems. In other DirectTV news, consumers in **Alaska** can now enjoy DSS service, though dishes measuring from about 4 to 8 feet in diameter are required. And DirectTV has won a technical **Emmy Award** for their work in developing DBS technology. . . . Speaking of Emmy Awards, **Matsushita** has won one for their D-5 digital videotape format. . . . **Sony's** Maximum TV packages combine their V Series 27-

or 32-inch TVs with a VCR, cabinet, and a surround-sound system; prices range from \$2,399 to \$3,999. . . . **Nintendo** recently sold their one-billionth videogame cartridge; according to the company, that's three per second every minute of every day for the past 12 years, one for every teenager in the world, one for every person in North America, Europe, and Japan, the total lifetime of a 31-year-old (in seconds), or the annual interest on **Bill Gates'** Microsoft stock. . . . Talking Frames Corporation (800.666.3685) is offering **talking picture frames** commemorating *The Wizard of Oz* and *Gone With the Wind* (\$80 each); in addition to a color photo from the movie, each frame includes a text synopsis on the back and classic audio snippets from the soundtrack.

—Bob St. Nice

ADCOM

GTP-600

signal

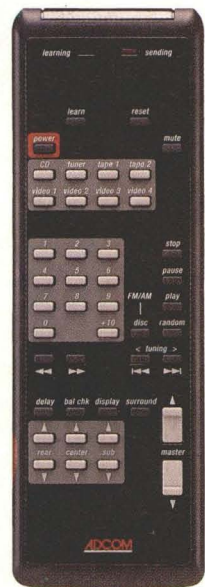
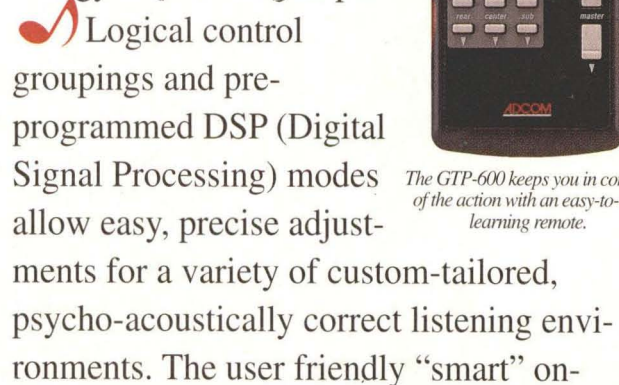
sensor

STEREO FM 97.9 MHz PRESET 4

1 2 3 4 5 6 7 shift (8-14)

phones

FM/AM seek/manual < tuning > audio mute high blend



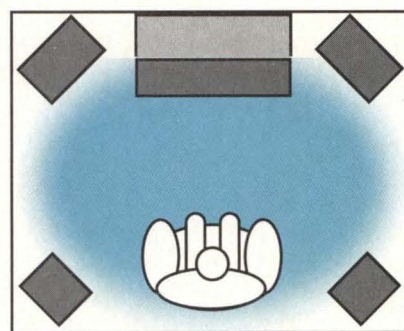
The GTP-600 keeps you in control of the action with an easy-to-learn learning remote.

GTP-600: The improvement.



screen display keeps you fully informed and makes system balancing easy and accurate. 🎵 These features couple ideally with the GTP-600's advanced, programmable remote which lets you command up to eight additional system components. This sophisticated combination consistently delivers sound exactly the way you want to hear it. 🎵 And the details? Typically Adcom. Gold plated RCA connectors, precision 1% tolerance Roederstein metal-film resistors and high speed linear gain amplifiers are just a few of the many outstanding design elements that give the GTP-600 its exceptional audio and video quality. 🎵 Now, with Adcom home theater you can build an addition to

your home that you can feel as well as see and hear. Pick up the right tools for the job at your local Adcom dealer today. You'll realize that our state-of-the-art components hit the nail on the head every time.



With the GTP-600's delay modes the rear channels move the walls back simulating the effect of a much larger area.

ADCOM®

details you can hear

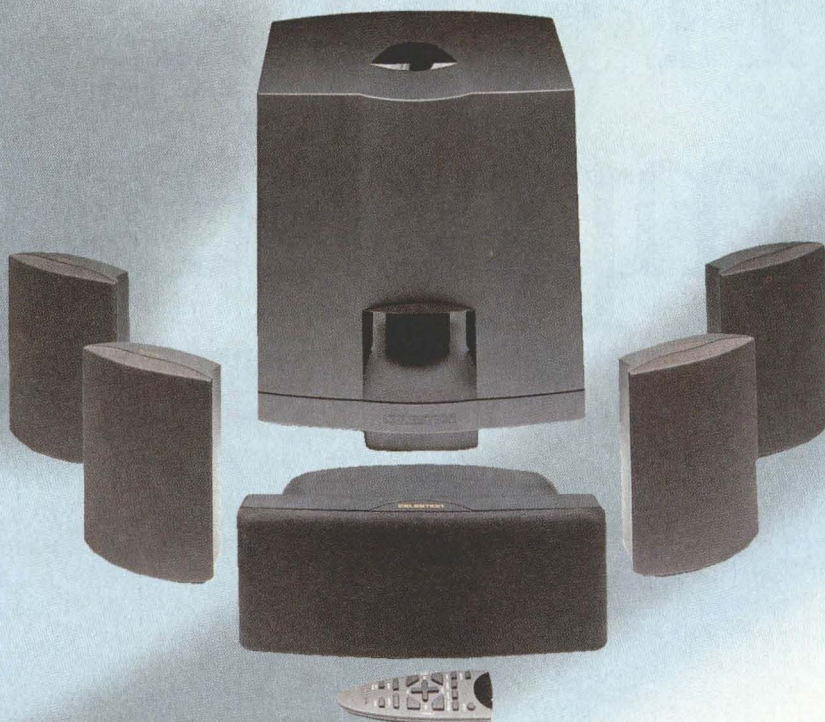
11 Elkins Road, East Brunswick, NJ 08816 U.S.A. (908) 390-1130.
Distributed in Canada by PRO ACOUSTICS INC. Montréal, Québec (514) 344-1226

CIRCLE NO. 1 ON READER SERVICE CARD

© 1994 ADCOM

pack in a box ►

Add the Celestion HTiB surround-sound system (\$1,000) to a TV and VCR and you have an instant home theater. The HTiB ("home theater in a box") includes a combo powered subwoofer/system amplifier/Dolby Pro Logic decoder, four satellite speakers, and one center speaker. The ported sub has a 10-inch cone; the amp is rated to deliver 60 watts rms to the sub plus 30 watts rms to the center speaker and each satellite. An illuminated remote control is supplied. *Circle 100 on reader service card*

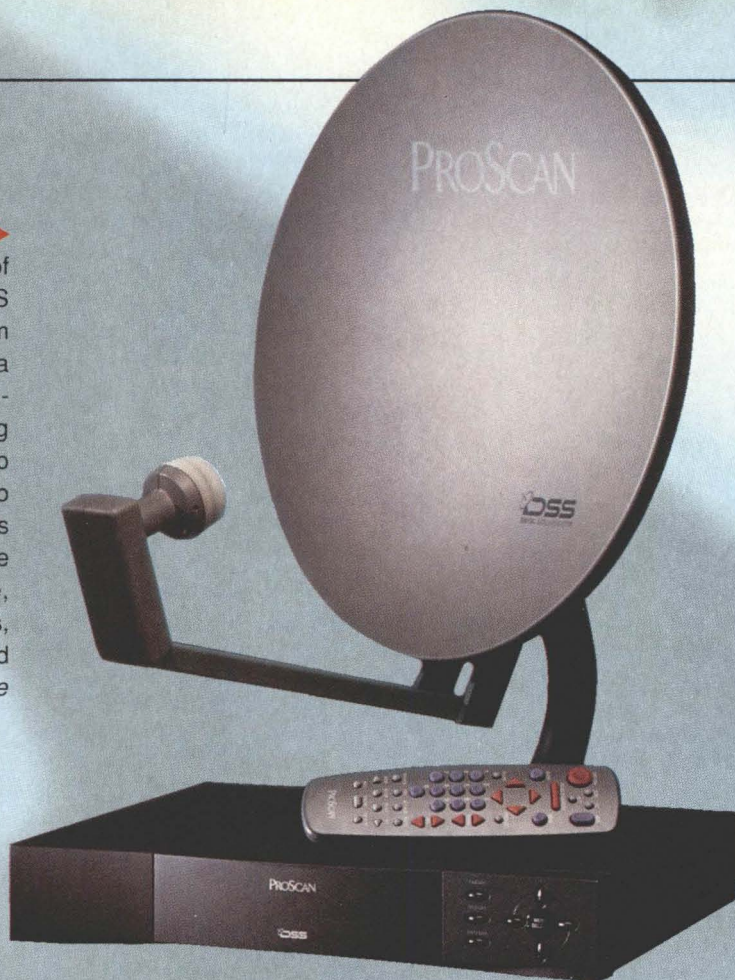


◄ widebody

The screen in JVC's NV-55BX6 55-inch rear-projector (\$4,500) has a 16:9 aspect ratio. The set offers five display modes, a 3-D digital comb filter, color-enhancement and corner-focus circuitry, and dual-tuner PIP with full-motion and split-screen functions. Audio features include Dolby Pro Logic decoding, nine DSP surround-sound modes, two main speakers, and a center-channel speaker. The front panel has S-Video and RCA inputs, and the rear panel offers three S-Video inputs and three composite input/output sets. *Circle 101 on reader service card*

pro from dover ▶

ProScan, a corporate sibling of RCA and GE, enters the DSS derby with the PS84360A system (\$999). The system includes a dish, receiver, and mounting/connection accessories, including hardware for distributing signals to a second room. The dish has two LNB outputs, and the receiver is equipped with a decoder for the StarSight program-guide service, two sets of gold-plated A/V outputs, an S-Video output, and wideband and low-speed data ports. *Circle 102 on reader service card*



▼ human touch

Kenwood's KC-Z1 THX-certified tuner/preamplifier/surround-sound processor (\$2,800) features onboard Dolby Pro Logic and Dolby Surround AC-3 processing. A unique detachable LCD "touchscreen" universal remote operates all of the Z1's functions from anywhere in the home via 900-MHz radio-frequency (RF) signals. Six video inputs, five analog audio input sets, four digital audio inputs, and a dedicated AC-3 input are on tap. *Circle 103 on reader service card*



BY CHUCK TANNERT

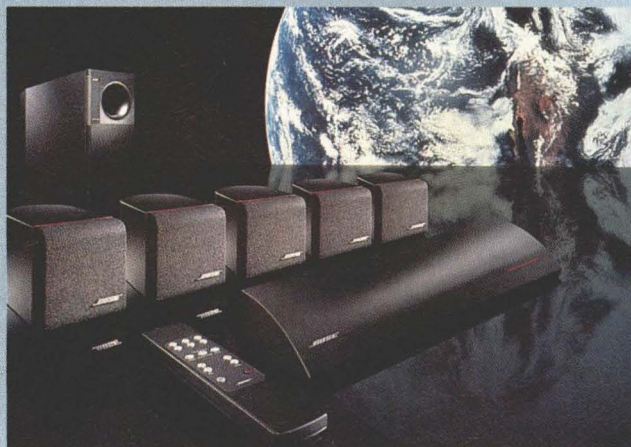


◀ laser's edge

Yamaha's CDV-W901 laserdisc player (\$899) has an AC-3 output as well as an optical digital output. Soundtracks are handled by a 1-bit pulse-flow D/A converter. User conveniences include two-sided play, on-screen displays, and S-Video as well as composite outputs. The CDV-W901 can play LD, CD, and CDV discs; horizontal resolution is given as 425 lines, video S/N as 49 dB. Digital video processing and digital field memory are also on tap. *Circle 104 on reader service card*

four play ▶

Proton's WT-3650 (\$5,000), a 34-inch widescreen TV set, offers a choice of four picture formats: standard 4:3, full, 16:9, and zoom. Features include dual-tuner PIP, a digital comb filter, a 3.58-MHz notch filter, and dynamic-focus as well as image-enhancement circuitry. Soundtracks are handled via pairs of two-way speakers and woofers. Rear-panel connections include two antenna inputs and three S-Video inputs; RCA and S-Video inputs are also supplied on the front panel. Horizontal resolution is rated at 600 lines. *Circle 105 on reader service card*

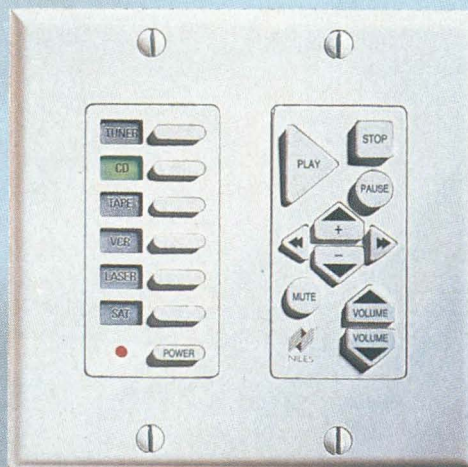


◀ sat lite

The Companion surround-sound system (\$1,399) is Bose's latest volley in the shrinking-satellite wars. The system combines five 3-inch-high Acoustimass satellites, an Acoustimass bass module that includes an amplifier for each speaker, and a system controller. The controller employs the company's Videostage circuitry to generate surround sound, provides connections and switching for up to six A/V sources, and has four S-Video and RCA A/V inputs. *Circle 106 on reader service card*

nice pad ▶

Niles' IntelliPad (\$350) is a wall-mountable A/V keypad that's designed for use in multiroom systems. It can control up to six A/V sources and is supplied with a wireless remote. Programming the pad is said to be simple thanks to visual prompts; for systems with more than one IntelliPad, program protocols can be transferred among them via an optional cable. *Circle 107 on reader service card*





Patented Acoustimass® bass module. Helps make a 60-ton runaway train sound like, well, a 60-ton runaway train. Hides out of view.

Home Theater Made Easy

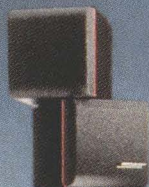
[The Bose® Lifestyle® 12 home theater system]



So simple it comes in one box. Within minutes you'll be enjoying your favorite movies and music more than ever.

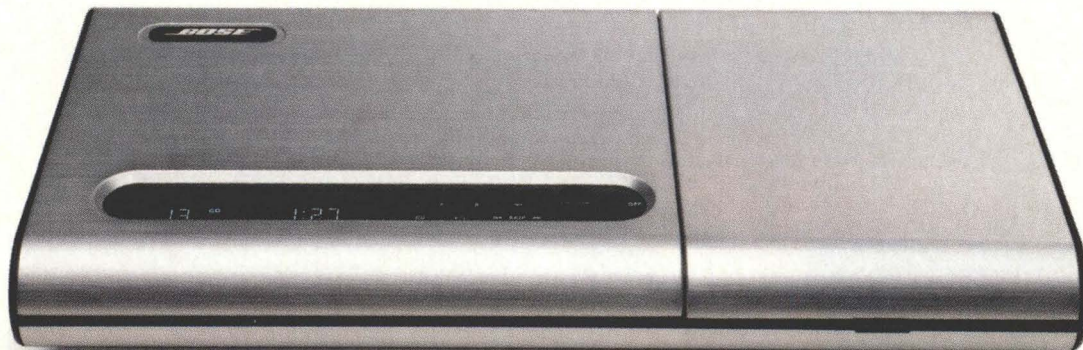


Remote with real control. Automatically sets to surround sound for movies and TV, or two-channel stereo for music. Works right through walls.



Movie theater drama, concert hall excitement. Surround sound from five Virtually Invisible® cube speakers for left, center, right, and rear channels. Each about 6" high.

Lifestyle® music center replaces an entire rack of components. Includes built-in CD player and AM/FM tuner. Technology inside, simplicity outside.



"You might call this product 'home theater in a box,' because everything is included and carefully thought out.... The performance is awesome, and system operation is very intuitive." – Home Theater Technology

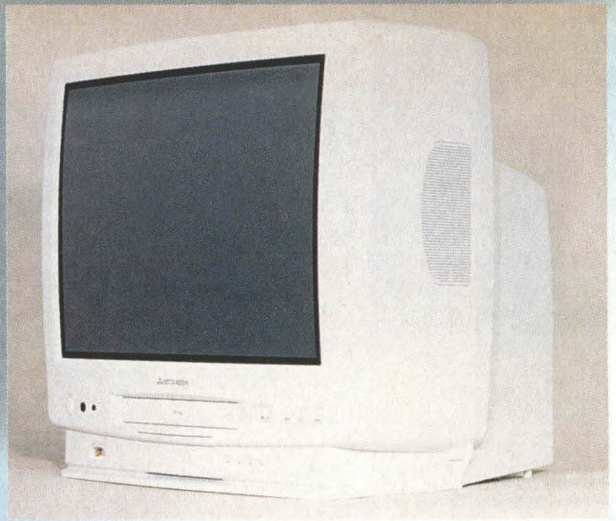
The challenge was clear. Develop the best sounding, easiest to use home theater system ever. The result is the Lifestyle® 12 system. Smaller. More convenient. With the kind of dramatic, lifelike performance you expect from the most respected name in sound. But hearing is believing, so call for dealers near you,

1-800-444-BOSE ext. 705.

BOSE
Better sound through research.

double-decker ▶

Mitsubishi's CV-20126 TV/VCR (\$699) mates a 20-inch TV with a four-head VCR. TV features include a tinted black-matrix CRT, a multi-language on-screen operating system, and closed captioning. VCR features include HQ circuitry, five-event/1-month programming, auto tracking, and a child-safe lock. Front A/V inputs, a headphone jack, and a 38-button remote control round out the package. *Circle 108 on reader service card*



◀ hot spot

Fisher's FVH-4912 Hi-Fi VCR (\$400) is loaded with the hottest programming features: VCR Plus+ and cable-box control simplify recording of off-the-air and cable channels. The four-head 4912 also features an MTS/dbx stereo decoder, a universal remote control with jog/shuttle controls, front A/V inputs, eight-event/1-year programming, and index tracking. *Circle 109 on reader service card*



the mouse that roared ▶

Samsung's VR5905 VCR (\$449) employs a decoder for the StarSight program-guide service. The four-head VR5905 is equipped with front-panel jog/shuttle controls, a universal remote, auto time setting, cable-box control via a supplied mouse, and a set of front-panel RCA inputs. *Circle 110 on reader service card*



◀ accessorize

API's line of modular A/V furniture features matte-black steel construction and fits together to satisfy a wide variety of storage needs. Offerings include a three-shelf A/V rack (two shown; \$160 apiece), single-shelf extensions (two shown; \$55 apiece), a two-shelf TV rack (\$150), and various horizontal TV "extension bridges" (one shown; \$70 to \$80). Speaker stands, wall-mount brackets, and other products are options. *Circle 111 on reader service card* ■



THE ULTIMATE MOVIE EXPERIENCE.

3 LASERDISCS

FOR JUST \$1.00 EA.

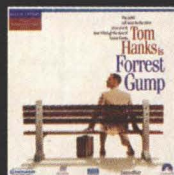
PLUS 1 MORE AT GREAT SAVINGS SEE DETAILS BELOW.

Tales from the Crypt: Demon Knight	*1372200
Nell	*1382100
The Making Of Jurassic Park (Special Edition)	1372606
Ace Ventura: Pet Detective	*1242908
Grumpy Old Men	*1251503
Batman (1989)	*0642504
Street Fighter	1384007
Unforgiven (1992)	*1084003
Disclosure	*1371004

CLUB FAVORITES

Legends Of The Fall	*1371301
Interview With The Vampire	*1364405
Mary Shelley's Frankenstein (1994)	*1363803
The Shawshank Redemption	*1345503
Stargate	*1334903
True Lies	*1327105
Terminator 2: Judgment Day	*0233205
Clear And Present Danger	*1326305
Speed	*1297407
Bladerunner (The Director's Cut)	*1097906
The Fugitive	*1197706
Close Encounters Of The Third Kind (Special Edition)	*1273002

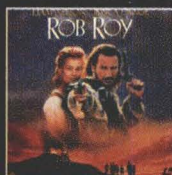
The Professional	*1364801
Predator	*0364901
Predator 2	*0104307
The Client	*1300409
Blown Away	*1291301
The Pelican Brief	*1251305
The Wizard Of Oz	0001404
A Few Good Men	*1106301
Patriot Games	*1051309
Carlito's Way	*1229301
The Abyss	*0881102
The Sound Of Music	*0003905



FORREST GUMP
1333202*



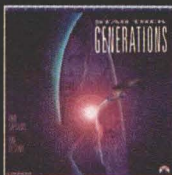
JURASSIC PARK
1264001*



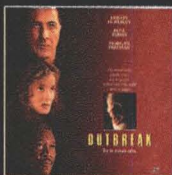
ROB ROY
1423201*



RETURN OF THE JEDI
(THX) 1415900*



STAR TREK GENERATIONS
1382803*



OUTBREAK
1389501*

Star Wars (THX)	*1416007
The Empire Strikes Back (THX)	*1415801
Goodfellas	*0969808
Basic Instinct	*1033208
Home Alone 2: Lost In New York	*1104900
The Prince Of Tides	*0847103
Jaws	*0844605
Star Trek I: The Motion Picture	*0203505
Star Trek II: The Wrath Of Khan	*0201301
Star Trek III: The Search For Spock	*0201608
Star Trek IV: The Voyage Home	*0430603
Star Trek VI: The Undiscovered Country	*1001007
Silverado	*0181008
Sleepless In Seattle	*1154905
Ghost	*0826008
The Specialist	*1341700
The Last Of The Mohicans (1992)	*1071406
The Hunt For Red October	*0825000

Backdraft	*0559005
Cliffhanger	*1149301
In The Line Of Fire	*1190107
Maverick	*1297209
Dragonslayer (Remastered)	*1352103
Junior	*1364504
Robin Hood: Prince Of Thieves	*0976803
Drop Zone	*1364306
Wolf	*1314905
Darkman	*1375609
Darkman II: The Return Of Durant	*1372101
I.Q.	*1381904
Paper Moon (Dir.'s Series)	*1382209
The Piano	*1237809
Ren And Stimpy: The Essential Collection	*1411206
Circle Of Friends	*1381102
Philadelphia	*1251404
Demolition Man	*1199306
Pink Floyd: The Wall	*1293802
E.T.: The Extra-Terrestrial	*0681106
The Silence Of The Lambs	0805309

Total Recall	*1286103
Bram Stoker's Dracula	*1102904
Nighthawks	0101105
The Bodyguard	*1105907
The Brady Bunch Movie	*1381003
Under Siege	*1077908
On Deadly Ground	*1251909
Tank Girl	*1389600
Little Women (1994)	*1372903
The Hunted	*1422807
Major Payne	*1411404
Murder In The First	*1371103
Bridge On The River Kwai (Restored)	*1143809
A Clockwork Orange	*1356005

NEW RELEASES

Ferris Bueller's Day Off	*0427302
French Kiss	*1439603
Hideaway	*1422708
Higher Learning	*1381805
Immortal Beloved	*1372309
Just Cause	*1386408
Kiss Of Death (1994)	*1422906
A Little Princess (1995)	*1404201
Losing Isaiah	*1413400
New Jersey Drive	*1428903
The Quick and the Dead (1995)	*1411107
Boys On The Side	*1386309
Priscilla Queen Of The Desert	*1345206
The Shadow	*1297001
Nobody's Fool	*1382902
Legend	0218008
The River Wild	*1336304
Natural Born Killers	*1327709
2001: A Space Odyssey	*0844308
Journey To The Far Side Of The Sun	*1352400
Timecop	*1332204
The Adventures Of Baron Munchausen	*0594309

Here's a great way to build a collection of your favorite movies - on laserdisc! Just write in the numbers of the 3 laserdiscs you want for \$1.00 each, plus shipping and handling. In exchange, you simply agree to buy four more laserdiscs in the next two years, at regular Club prices (currently as low as \$29.95, plus shipping/handling)-and you may cancel membership at any time after doing so. What's more, you can get still one more movie for the low price of \$19.95 and have less to buy later (see complete details in coupon).

Free Magazine sent every four weeks (up to 13 times a year) reviewing our Director's Selection - plus scores of alternate choices, including many lower-priced laserdiscs. And you may also receive Special Selection mailings up to four times a year. (That's up to 17 buying opportunities a year.)

Buy only what you want! If you want the Director's Selection, do nothing - it will be sent automatically. If you prefer an alternate selection, or none at all, just mail the response card always

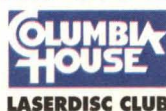
provided by the date specified. And you'll always have 14 days to decide; if not, you may return the selection at our expense.

Money-Saving Bonus Plan. If you continue your membership after fulfilling your obligation, you'll be eligible for our generous bonus plan. It enables you to enjoy great savings on the movies you want - for as long as you decide to remain a member!

10-Day Risk-Free Trial. We'll send details of the Club's operation with your introductory package. If not satisfied, return everything within 10 days at our expense for a full refund and no further obligation.

For fastest service, use your credit card and call us toll-free 24 hours a day:

1-800-538-2233 Dept. 2QM



Entertaining America... One Person at a Time.®

Columbia House Laserdisc Club

Dept. 2QM, P.O. Box 1112, Terre Haute, Indiana 47811-1112

Yes, please enroll me under the terms outlined in this advertisement. As a member, I need to buy only 4 more selections, at regular Club prices, in the next 2 years.

Send me these 3 laserdiscs for \$1.00 each-plus \$1.50 each shipping and handling (total \$7.50).

--	--	--

BUY YOUR FIRST SELECTION NOW-AND HAVE LESS TO BUY LATER!

☐ Also, send me my first selection for \$19.95, plus \$1.50 shipping/handling, which I'm adding to my \$7.50 payment (total \$28.95). I then need to buy only 3 more (instead of 4) in the next 2 years.

Please Check How Paying:

☐ Charge my introductory laserdiscs and future Club purchases to:

☐ MasterCard ☐ Diners Club ☐ AMEX ☐ VISA ☐ Discover

Acct. No. _____ Exp. Date _____

Signature _____

Name _____

Address _____ Apt. _____

City _____ State _____

Zip _____ Phone No. (_____) _____

Do any of the following apply to you? (41)

☐ I own a Personal Computer (1) ☐ I own a PC with a CD-ROM (2) ☐ I plan to buy a PC with a CD-ROM (3)

Note: This offer applies to first-time Laserdisc Club members only. Limit one per household. Columbia House reserves the right to request additional information, reject any application or cancel any membership. Offer limited to the continental U.S. (excluding Alaska). Applicable sales tax added to all orders. 02-12/95

NEC's Silicon View offers a glimpse of our solid-state future

SILICONCEIT

WHAT DO ANTIQUE PHONOGRAPHS, VCRs, and hamster-cage treadmills have in common? They all have moving parts. And these moving parts, whether they're simple mechanical bearings, windup springs, or sophisticated servo-controlled electric motors, all constitute the weak link in the system. Moving parts inevitably fail because of such things as mechanical imperfection, friction, or heat. Even while they're still working, moving parts consume enormous amounts of energy to keep them moving—whether it's a windup spring, an electric motor, or a frisky hamster, a large energy source is required. In addition, mechanical parts consume space and are sensitive to shock and vibration. From a design standpoint, then, moving parts are a mess. And solid-state devices are far superior.

Free of moving parts, solid-state devices are immensely more reliable, consume less energy, are cheaper to manufacture and maintain, and aren't affected by vibration. A solid-state world is clearly better than a world of machines, and technological evolution is inevitably moving toward it. Video storage systems are no exception.

Though devices such as VCRs and LD players are linked to a primitive past because of the moving media they employ, they're also pretty darned efficient. The problem of storing an enormous amount of analog or digital information is solved by spreading it over a large physical area—whether an 800-foot-long piece of half-inch tape or a 12-inch-diameter disc, that physical space solves the problem of where to put all of the signal information. Once you've spread the data all over the place, of course, you need moving parts to get to it. Bingo—you've got a problem.

Manufacturers have long dreamed of a solid-state storage system that'd store information virtually, so that it could be retrieved without physical movement. In theory, the problem isn't overwhelming: Simply digitize the information and place it in solid-state memory. That's fine for relatively small amounts of data, which explains why we've seen pocket-size electronic organizers, sports databases, Holy Bibles, and similar "etext" products. But the size of these memories is far from sufficient for a video signal; only a few video frames would exhaust the entire memory contents. Using some very sophisticated technology, however, manufacturers are beginning to show prototype solid-state video players with sufficient storage capacity to handle video's huge demands.

Case in point is NEC's Silicon View, a prototype portable video and audio player. It's billed as the world's smallest video player, and

provides real-time playback of A/V data stored on a credit-card-size memory wafer. The Silicon View is free of all of those pesky problems associated with moving-parts players—longevity, image or sound skipping, broken tape, and so on—and provides perks such as truly instant random access.

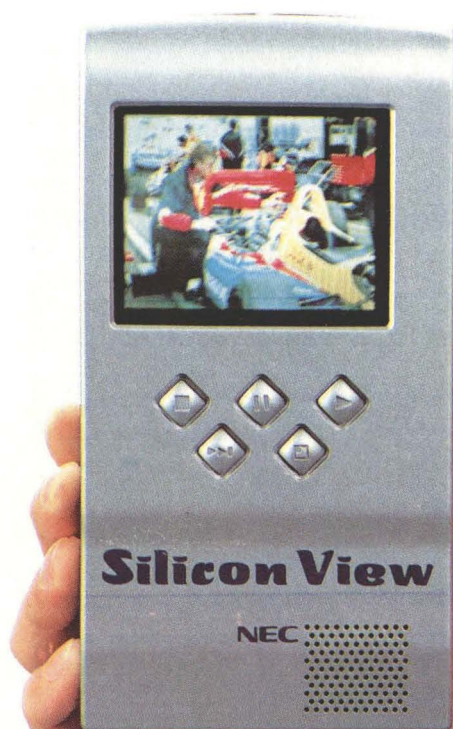
The handheld player measures 5.7 x 3 x 1.5 inches and weighs about 0.8 pound. The screen measures 2.5 inches diagonally and uses LCD twisted-nematic technology with 312 pixels x 230 lines. Power comes from a lithium-ion battery.

The Silicon View tackles the twin challenges facing anyone trying to develop such a product: the need for efficient data reduction, and development of a huge (but physically small) removable memory module.

As I've mentioned in previous columns, an enormous amount of data is required to code a video program. An NTSC analog composite-video signal has a bandwidth of 4.2 MHz. To digitize it, a sampling frequency of 8.4 MHz is needed; at 8 bits per sample, this yields 67.2 Mbps (million bits per second). If each of the red, blue, and green components is stored separately, the rate is boosted to 201 Mbps. In practice, efficient signal processing can make do with 165 Mbps; in fact, this is the standard rate for digital broadcast video.

Though professional video recorders can handle this kind of data rate, they cost more than a new car. Consumer video storage devices, especially a solid-state one like the Silicon View, can't. So data requirements must be decreased by dropping the frame rate, reducing the size of the image, or cutting the number of bits used to code colors. And then there's data reduction.

The technique behind video data reduction is relatively simple: An encoder examines both single video frames and a series of frames, and removes redundant visual data. This is accomplished with



an eye (pun intended) toward our perceptual limitations. Clearly, any data that won't be perceived at all can be safely removed, and the extent of further removal can be gauged by our sensitivity to its loss. Upon playback, a decoder recreates a video signal from the compressed data. Though digital audio data rates are relatively modest (perhaps only 0.7 Mbps), the desire for multiple channels soon pushes up the rates, so the audio data needs to be reduced as well.

As with many other contemporary digital systems, the Silicon View employs MPEG data reduction; NEC's prototype uses MPEG-1. Thanks mainly to the small screen size, the original A/V data rate is 31 Mbps. The encoder reduces this to 1.4 Mbps, for a relatively mild compression ratio of 23:1. Six seconds of program material consume 8.4 Mb of memory; with a 320-Mb (40-MB) memory card, playing time is about 4 minutes. Image quality is comparable to that of VHS videotape, and you also get CD sound quality. In the reduced resolution mode (15 seconds for every 8 Mb), total playing time stretches to 10 minutes.

Either way, the playing time is far short of the tick-tocks needed for *Ace Ventura: Pet Detective*, let alone *Lawrence of Arabia*. But NEC expects that to change soon. In fact, so-called gigabit-class memories are on the way; 90-minute playing time requires a mere 7.5 Gb of memory. That could easily be squeezed onto a wafer with eight 1-Gb DRAM (dynamic random-access memory) chips. When will we see gigabit chips? NEC is predicting "turn of the century," which used to be a long way off, but no longer is.

As noted, data reduction will still be essential even with big memories. And though development of dense memory technology is a major hurdle, reduction is far from trivial. From a technology

standpoint, video reduction is very demanding, so high-performance systems use dedicated hardware chips (some lower-quality systems run software algorithms on generic processors). For greater performance efficiency, the Silicon View uses proprietary audio/video VLSI chips to perform MPEG-1 video processing and MPEG-1 Layer I or Layer II audio decoding.

NEC has also developed an MPEG-2 decoder chipset, but it wasn't used in the present Silicon View prototype be-

cause MPEG-2 is inherently more data-hungry than its little brother. MPEG-1 can still produce a good-quality picture, with 352 pixels x 240 lines and 1.5 Mbps. But MPEG-2, with 720 pixels x 480 lines, really leaves it in the dust. The cost is a bit rate that bumps up to 4 Mbps. In addition, the computational load of MPEG-2 is about four times that of MPEG-1; this increases both chip cost and power consumption. Because a low data rate is critical in a solid-state play-

CONTINUED ON PAGE 110

WEB WATCH

Sites for one-stop video shopping

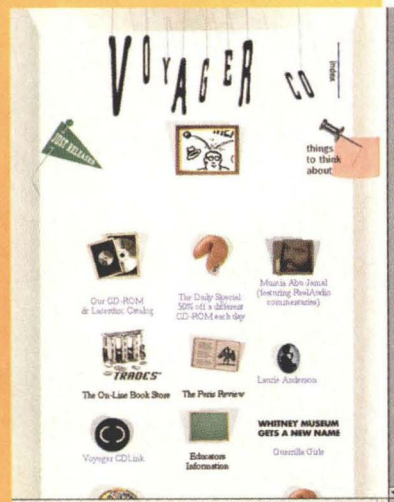
CONGRATULATIONS! AFTER FEDERAL INCOME TAX, SOCIAL-SECURITY TAX, STATE INCOME tax, and city tax, your paycheck still has at least three digits. But why waste those greenbacks on rent, car payments, or food? Buy something you really need, like more tapes and laserdiscs. And look to the Web, because it's become a great place to shop.

LD aficionados should make the Voyager Company's Criterion Collection (<http://www.voyagerco.com/CC/gh/p.crit.html>), a page with information on Criterion's top-notch laserdisc collection of 200 classic and contemporary films, their first stop. The site has complete catalog listings (by title, genre, director, year, and country), and discs are discounted. You'll also find links to pages like The Internet Movie Database (<http://www.msstate.edu/Movies/>) and the world-famous Mel's Godzilla Page (<http://www.ama.caltech.edu/users/mrm/godzilla.html>).

Next stop: Film.com (<http://www.film.com>) is a site devoted to film devotees, and current events are its forte, including a home-video and laserdisc-release calendar. The site also has some nice subsidiary pages like Rain City Video (<http://www.film.com/film/raincity/welcome.html>). Billed as the Film Lover's Video Store, Rain City lets you search their video and laserdisc database: You simply type in a keyword (such as "planet"), and it returns the full title (such as *Fantastic Planet*, *Forbidden Planet*, and the unforgettable *Madballs VI Escape from Planet Orb*) and format.

Finally, if you like movies that everyone else hates, make sure you stop by the Picture Palace (<http://www.ids.net/picpal/index.html>), which specializes in the patent-ly weird. Don't miss the Gold-plated Egg Decapitator Contest.

—KCP



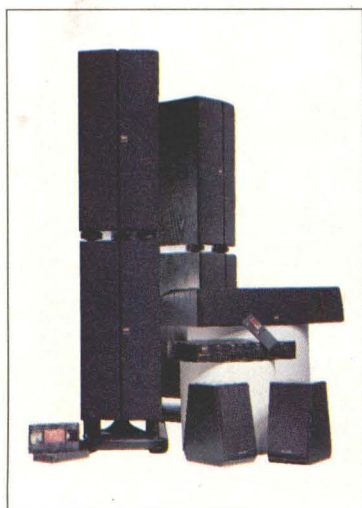
"Matthew Polk Redefines State-Of-The-Art ... Again."

MATTHEW POLK'S HOME THEATER SYSTEM CAN NOW BE YOURS

What started out as Matthew Polk's desire to design the ultimate home theater system turned into the most ambitious research project in Polk's 22 year history. The result, the Signature Reference Theater (SRT), is a home entertainment system of such enormous dynamic range, accuracy, clarity and power that listening will touch you physically and emotionally.

Five proprietary Polk technologies, including Polk's legendary SDA imaging, are combined to bring you "Performance Without Limits".

For more information and the location of a Polk SRT dealer near you, call (800) 377 - POLK.




The SRT system consists of 35 active drive units housed in seven enclosures (including two 300 watt powered subwoofers) and a Control Center with wireless remote.

Matthew Polk
Co-founder, Polk Audio

WARNING: THIS SYSTEM IS CAPABLE OF EXTREME SOUND PRESSURE LEVELS. SRT SYSTEMS ARE SUPPLIED WITH A SOUND PRESSURE LEVEL METER TO HELP YOU DETERMINE SAFE LISTENING LEVELS.

Dealer Locator Number

 1-800-992-2520
Ad code: 60010

polk audio
The Speaker Specialists®

5601 Metro Drive, Baltimore, Maryland 21215 USA (410)358-3600.

"Polk Audio", "The Speaker Specialists" and "Dynamic Balance" are registered trademarks of Polk Investment Corporation used under license by Polk Audio Incorporated.

CIRCLE NO. 50 ON READER SERVICE CARD

The ultimate potential of the digital videodisc

GOAL TENDING

MOST OF THE PUBLICITY SURROUNDING the digital videodisc (DVD) has centered on the format's potential to replace the massive VHS movie-rental market, the CD-ROM, and, possibly, even the audio CD. One aspect that isn't getting much press, however, is DVD's potential in high-end video systems. In terms of sheer numbers, there aren't

enough videophiles to make this aspect a factor

in the new format's success, but that doesn't necessarily mean that their needs will be ignored. In

fact, DVD has serious potential to make

videophiles very happy.

DVD's picture quality is being touted as equal to or better than that of the LD. Some industry pundits have even suggested that it approaches the level of D-1, the digital component format that's used for top-quality mastering during video post-production. (D-1 is a step above the D-2 tape system used to master the majority of LDs.) But the DVD format employs a large degree of video data reduction, and videophiles are rightly wondering whether DVD can survive the potential for the motion artifacts that often accompany the reduction process. If there are artifacts, DVD will get the cold shoulder from the videophile community. The jury, of course, has yet to see the final product.

What hasn't been discussed in public (until now) is that the motion-picture film sources intended for DVD use are being recorded in a single worldwide format that can be translated to both the

European PAL and U.S. NTSC television systems. This is a key point, since the picture-resolution capabilities of 625-line PAL are greater than those of 525-line NTSC. This means that if a DVD is good enough to work in the PAL system, it'll have more picture quality than our NTSC system is capable of delivering. This fact may invite pessimism, but I see opportunity here—and that's only the beginning of the new format's potential for the videophile community.

DVDs will be sourced in a wide-screen, 1.78:1 anamorphic aspect ratio for those sets currently on the market that can take advantage of the squeezed image. Movies with ratios wider than 1.78:1 may still have a black bar at the top and bottom, depending on how the decision-makers want them released. Every DVD player will also convert the anamorphic 1.78:1 image to a letterboxed image or a 1.33:1 pan-and-scan picture.

Two other important aspects of the DVD format haven't been widely discussed. First, as mentioned, it's a 625-line format, but it's progressively scanned, meaning that the entire picture is created in a single scan from the top to the bottom of the display. Given special scan-rate processing electronics, this means that vertical picture resolution will be much improved over our current TV system. In fact, a DVD should contain more vertical resolution than we can currently get out of the best line-doubler on the market. In the interest of conserving disc storage space, the system stores 24 pictures per second (the same number available in a standard feature-film release). Every DVD player will perform signal processing to convert this 24-frame signal to the 50-field signal used by PAL or the 60-field signal used by NTSC. But a high-end DVD player could also include an output that's tapped before that conversion,

and that 24-frame fork in the road could be converted to a 96-frame signal that'd look spectacular on a graphics-grade front-projection system.

Second, DVD is a true component format, with three channels of information conveying the luminance (black-and-white) and color information. As such, it's (fortunately) quite unlike the composite formats in use today, which encode these three signals into one—a process that limits potential picture quality. The component format isn't new: It's been used in video post-production since the mid-'80s, future HDTV systems will be component, and DSS is being transmitted in digital component form today (though it has lower resolution than the DVD format, and it's converted to an analog S-Video or composite video signal when it hits the DSS receiver).

What to do with all of this potential? Currently, there aren't enough graphics-grade projectors in American homes for DVD's major proponents to pursue it. But there are some who'd be likely to welcome a high-end DVD player or add-on that delivered the 96-frame signal I mentioned earlier. More than one specialty manufacturer I've spoken with has indicated an interest in exploring the possibility of such products; a high-end DVD player would probably cost as much as a high-end LD player. And some of the big guys in the DVD camp have expressed an interest in assisting them. Perhaps they see an advantage to the high-end market bestowing its blessing on DVD, and hope that consumers will show more interest in DVD now if they know that the discs will look even better on next-generation TVs.

That last point is crucial. We're talking future compatibility. Even if a high-definition version of DVD arrives in less than 10 years, the DVDs you buy during the remainder of this decade should hold up as the format evolves. ■





GET THE LATEST MOVIES,
THE HOTTEST NETWORKS
AND COMMENTS LIKE
“DAD, CAN WE TALK ABOUT
HOW IT WORKS LATER?”

We'll make this quick. USSBSM brings channel after channel of top movies and a collection of the best entertainment networks right to your TV. All via a simple-to-install, 18-inch satellite dish called the Digital Satellite System (DSS[®]). So you receive a crystal-clear picture and CD-quality sound. Add DIRECTV[®] to our unique lineup and over 175 channels are at your fingertips. But enough talk already. Visit your local RCA or SONY retailer to find out about receiving the ultimate TV entertainment from USSB, through DSS technology. Be sure to ask about getting the first month of all our great channels free.



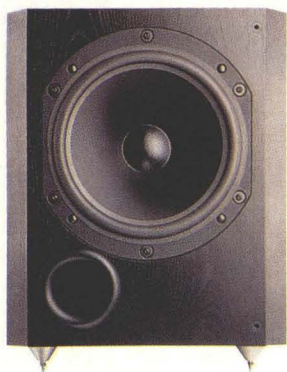
Changing the way you look at TV.



VIDEO
MAGAZINE
**BEST
OF THE YEAR**

VIDEO REWIND

**The Year in Review
and the 20 Best Products of 1995**



1995, THE MIDPOINT OF THE LAST DECADE IN THE LAST century of this millennium, will take a place of honor in the history of electronic home entertainment. And home video looms large in the proceedings.

Whether we're talking the introduction of digital camcorders, the rollout of Dolby Surround AC-3, the expansion of the DSS franchise and that format's conversion to MPEG-2 images, advances in rear-projector performance, the debut of 32-bit videogames, or the accord on a digital-videodisc (DVD) standard, the year ranks as one of the

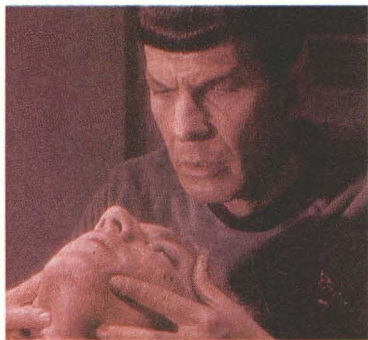
busiest in memory. An issue-by-issue stroll down memory lane, into which we've interspersed our picks for the 20 best products we tested during the year (review dates indicated in parentheses), argues the point with eloquence.





JANUARY

SOUND CHECK: In "The Next Sound You Hear," Timothy Liebe runs through techniques for creating great soundtracks for videos recorded on a camcorder, warning against pitfalls such as the dreaded **lip flap**. "Audio post-production makes your videos come alive," Liebe reports. "And it's easier than you might think." **DON'T PANIC:** Our grumpy "Tapes & Discs" contributors pan *The Client* ("not a great movie"), *I Love Trouble* ("may rub you



Meeting of the Minds Dept.

**Disney, Cap Cities/ABC
GoldStar, Zenith
Seagram, Universal Pictures
Time Warner, TNT
Toshiba, Philips/Sony
Westinghouse, CBS**

the wrong way"), and *Maverick* ("a misfire"), though the laserdisc release of *Snow White and the Seven Dwarfs* and *The Cartoon History of the Universe* CD-ROM get the nod. **TRACK BALL:** "Fast Forward" includes a link to A Million and One World-Wide Videos (800-849-7309), a service that helps track down virtually any video title; clients are billed only for successful searches. That column also provides

SPOCK: THE EVERETT COLLECTION

our first glimpse of VideoGuide's **sexy** on-screen program guide. **WHEREVER YOU ROM:** In "Desktop Cinematheques," Scott Wasser's review of movie guides on CD-ROM, **Microsoft's** *Cine-mania* and Banner Blue's *Movie Guide* get the big thumb's up.

FEBRUARY

ASTRAL PROJECTION: In "Giant Strides for Big Screens," Peter Barry, Lance Braithwaite, and three other editors set up **Screenhenge** to survey seven impressive rear-projectors; Pioneer's pricey Pro-97 Elite takes the gold. "Rear-projectors stand up well to big direct-view TVs, and can no longer be dismissed on the basis of picture quality," Barry concludes. **EAT YOUR HEART OUT, OPRAH:** Gordon McComb makes references to shaving and shoe shines in "10 Ways to Improve Your VCR's Picture," whose title just about says it all. Controversial topics like "cable-feed frustration" are given a full, **long-overdue** airing. **SPEAKING OF WHICH:** "Speakers of the House" surveys multispeaker sets from esoterics and stalwarts—main/center/right trios from Acarian, BIC, KEF, and PSB as well as five-speaker systems from Counterpoint and Unity. Climbing out of the **Wayback Machine**, Brent Butterworth opines, "Four years ago, we were frustrated in our attempts to find good center and surround speakers. Today, the task is easy." **I LIKE TO WATCH:** Decadence makes a comeback, as Michelle West and friends endure a 26-hour movie-watching marathon in "Off the Air." Helen Hunt turns up **naked** in *The Waterdance*, Tommy Lee Jones'

Big Shot

Plain and simple, the digital DCR-VX1000 (\$4,199) rewrites the rules on image quality for consumer-grade camcorders, and that's just the beginning:

"Images are proba-

Sony DCR-VX1000

bly better than what you get with some professional equipment . . . theoretically a flawless source in a complete Digital Video editing chain . . . offers everything that a seriously high-end camcorder should . . . a thrilling introduction" (Stewart Applegath, 11/95). **Honorable Mention:** Panasonic PV-DV-1000 (12/95).



buns are inspected in *Jackson County Jail*, and the gang consumes crab puffs with asparagus and fresh basil.

MARCH

PROTECTION: Mark Elson generates a huge flood of reader mail with "Warranty Roulette," which puts a new spin on the subject of extended warranties. "It's not all bad news," Elson reports, "though a good warranty value is often

Heads First

There's no red tape when it comes to the M-761 VCR (\$499): "VCR Plus+ programming and cable-box control are on hand . . . the Intel-a-Play functions are nice conveniences . . . picture quality and Hi-Fi audio quality are excellent" (Cliff Roth, 12/95). **Honorable Mention:** Panasonic PV-4562 (11/95).

Toshiba M-761





'Vox Populi

The nice-price TP3272 (\$900) is a steal if you simply want to plug in a VCR plus cable or an antenna and run with a clear, no-apologies 32-inch image: "The picture looks remarkably

Magnavox TP3272

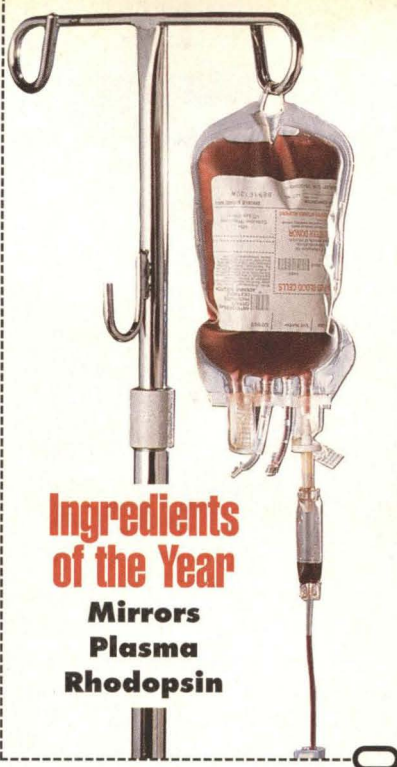
good out of the box . . . convergence and overscan are excellent . . . shouldn't prove difficult to calibrate . . . Smart Sound and Remote Locator are uncommonly useful features . . . great performance and an outstanding value" (Kevin Miller, 11/95). **Honorable Mentions:** Hitachi 27UX5B (6/95), Samsung TXC2726 (9/95).

PLASMA BAG: DAVID WOODS/THE STOCK MARKET

lost in the **hype** of a salesperson's presentation." **BATTING .500:** Heeding the Law of Averages, one item in "Fast Forward" errantly reports that the Video CD and CD-i formats are picking up **steam**, while another notes Philips and Sony's first revelation of their DVD spec. **SMALL CHANGE:** Jonathan Takiff worries loved ones when he suggests, in "Video in the Palm of Your Hand," that there's nothing more **comforting** than a handheld TV. The article includes a Buyer's Guide to 33 minis, in which Sony's pricey FDL-X600 is the eye-opener. **DANGEROUS MINDS:** In "Tapes & Discs," Sol Louis Siegel revels in the **tension** of *Clear and Present Danger*, while M. Faust calls Oliver Stone's *Natural Born Killers* "the most unrestrained exercise in visual style to appear in mainstream movie theaters since Ken Russell's *Tommy*."

APRIL

HIGH DEFINITION: Unbridled enthusiasm pervades "Small Dish Mania," in which Jonathan Takiff checks the **pulse** of the day's DBS offerings. "Has



Ingredients of the Year

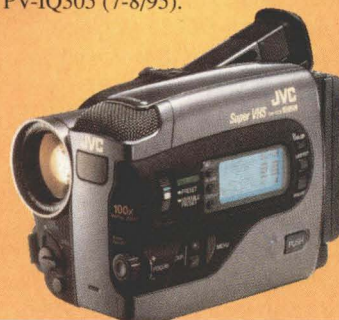
**Mirrors
Plasma
Rhodopsin**

there ever been a runaway consumer-electronics success story," he enthuses, "to match that of DSS?" **PASS THE TYLENOL:** High spirits also invest "Digital Fever, Las Vegas Style," a staff report on the **best** new products bowed at the annual Consumer Electronics Show. Attention-grabbers include DVD previews, set-top boxes, components with StarSight's on-screen program guide, gear and laserdiscs with Dolby Surround AC-3 surround sound, and 32-bit videogame systems from Sega and Sony. **OUTTA SIGHT:** We get our first opportunity to test drive StarSight in a "Hands-on Test" of Zenith's SM-3589BT8 35-inch TV. Ron Goldberg calls it "a humane and **bullet-proof**

Do the Rave

Few products approach perfection, but the GR-SZ9 S-VHS-C cam (\$1,799) gets as close to the mark as any camcorder we saw in '95: "Loaded with more manual controls . . . an improved viewfinder . . . more special effects. Succeeds in a lion-hearted attempt to deliver the whole enchilada: quantity, quality, and simplicity" (Stewart Applegath, 9/95). **Honorable Mention:** Panasonic PV-IQ305 (7-8/95).

JVC GR-SZ9



system that doesn't cost any more than *TV Guide*." **DISC FACTOR:** The issue's "Special Report" on DVDs is 6 months **ahead of itself**, as Frank Beacham declares that a "behind-the-scenes battle over competing formats appears to have come to an end without a shot being fired . . . and the likely winner is Toshiba." As it turns out, the two camps spend the rest of the spring and summer trading barbs and firing potshots. **SPIN DOCTOR:** David Morrell, videophile and author of a **Stallone**-bound novel, hands out awards for the best laserdiscs of 1994. Standouts in-

Wild Receiver

The groundbreaking VSX-99 (\$2,100) is all about "more"—more processing, more power, more connections, and more performance: "The first A/V receiver to incorporate Dolby Surround AC-3 decoding . . . aesthetically stunning . . . ups the ante for onboard power . . . incorporates a long list of features . . . bristles with connectors . . . the most powerful yet usable remote-control system I've seen . . . all-around excellent performance . . . clearly embodies the shape of things to come" (Dan Kumin, 1/96). **Honorable Mention:** Technics SA-TX1010 (11/95).

Pioneer VSX-99



VIDEO BEST OF THE YEAR

clude *My Fair Lady* ("Most Impressive Disc"), *The Nightmare Before Christmas* ("Clearest Image"), *Aladdin* and *Snow White and the Seven Dwarfs* ("Best Color"), and *Jurassic Park* ("Best Sound").

MAY

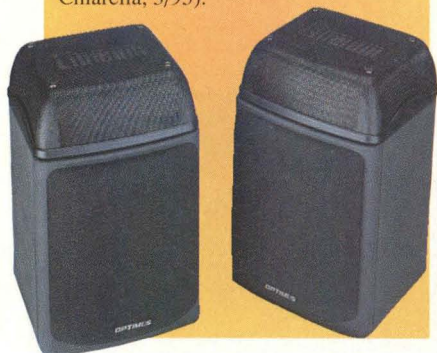
TAKE ME TO THE RIVER: **Meryl Streep** is quite candid when Ken Korman asks, in "Fast Forward," how she became a pro-grade rafter while working on *The River Wild*—"I was motivated by fear," La Streep confides. **SURROUNDED:** In "Digital Surround: The Next Big Sound?" Jonathan Takiff takes a close look at Dolby Surround AC-3, and he likes what he sees—"It's a sonic dazzler that raises the high-water mark of home-theater performance." The author also offers **apologies** to DTS, AC-3's

Little Big Men

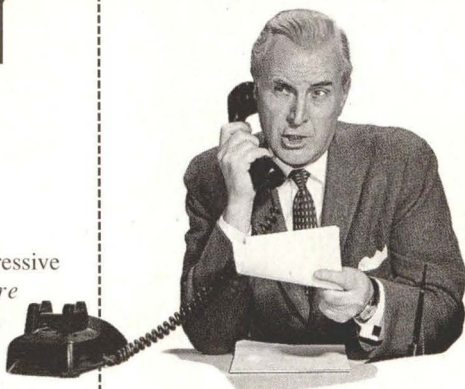
Imagine a Ford Escort winning the Indianapolis 500 and you'll understand

Optimus LX-5

how surprised audiophiles are when they hear that the LX-5 (\$300 a pair) comes from Radio Shack (via Linaeum): "Reproduces music with a clarity and transparency no other budget speaker can match . . . mates beautifully with inexpensive powered subwoofers . . . excels in both front and rear applications . . . the best sounding \$300 pair of speakers I've ever heard" (Anthony Chiarella, 3/95).



Hello, Tech Support? Fast Video Machine Life



rival: "Sorry, DTS. AC-3's lead looks unbeatable." **MUSIC MAN:** Chris Chiarella credits Michael Matessino in "Reinventing a Classic," which follows the **creation** of the THX-approved 30th Anniversary laserdisc of *The Sound of Music*. The set "truly merits the level of detail lavished on it," Chiarella attests. **RECEIVING LINE:** Ron Goldberg **dissects** and demystifies A/V receivers in "Anatomy of a Receiver." "The success of many home theaters owes a lot to this crucial component," he reports. Recommended models from NAD, Onkyo, Pioneer, Sherwood, and Yamaha range from \$379 to \$1,499. **NOBODY'S VAULT BUT MINE:** Bruce Eder's "Off the Air" about films that haven't made their way out of the video vaults sparks a huge number of reader letters, who have no trouble listing other **missing links**. As Eder notes succinctly, "There are still major, award-winning movies that have yet to appear

Scene Stealer

A topnotch, top-dollar 30-deuce, the KV-32XBR100 (\$3,300) has it all—looks, features, and tons of sheer performance: "A two-piece component affair . . . offers the largest number of inputs I've seen on a TV set . . . packed with convenience features . . . includes the NTSC STD (standard) color-temperature setting . . . a statement product and a true reference monitor" (Peter Barry, 12/95).

Sony KV-32XBR100



on laserdisc or tape"—examples include *Heavy Metal* (1981) and LDs of three *Flash Gordon* serials.

JUNE

HI, TECH: In the first issue published after Hachette Filipacchi Magazines acquires VIDEO from Reese Communications, Tom Heald's "Future Intense" reports on exciting video technolo-

PHONE GUY: SUPERSTOCK

In Control

Looking to get ahead? The ES5000 Hi8 cam (\$2,300) employs ingenious new technology to handle a variety of primary functions: "Eye Control lets you focus, set exposure, and direct camcorder functions simply by gazing into the finder . . . a beautifully designed machine . . . lots of high-end features . . . as smart as it is easy to set up . . . performs sophisticated transitions in-camera . . . its optical 20X zoom is currently the industry's largest . . . solid Hi8 video and audio performance" (Stewart Applegath, 1/96). **Honorable Mentions:** Sharp VL-H410U (5/95), Sony CCD-TRV30 (6/95).

Canon ES5000



gies—including DVDs, blue lasers, and holostors—of the near and not-so-near future. “Considering only those technologies that already exist in one nascent form or another,” Heald says, “it’s clear that the next 15 or 20 years will witness **huge advances** in home video.” SEE-WORTHY: Ty Harrington charts the way to underwater-videography **success** in “Depth Charge.” In terms of gear, Amphibico’s Dive Buddy III “sets the standard by which other camcorder housings will be judged.” DRIVE TIME: The watts and whys of power amplifiers are entertained in Dan Kumin’s “Power Trip.” In “Power Struggle,” the **bulked-up** companion comparison test of 12 stereo amps,

Vision Quest

If your taste in VCRs runs to a standard, no-frills package, look elsewhere. For the HR-S7200U (\$1,050), an S-VHS model with 400-line resolution and jog/shuttle controls on its face and remote, is quite simply the best VCR we tested in '95: “Boasts the S-VHS format’s picture-quality bonus, VCR Plus+, cable-box control,

and a number of useful editing features...

the difference in picture detail is immediately apparent on virtually any TV” (Cliff Roth, 1/96). **Honorable Mention:** Panasonic PV-S4480 (1/95).



Acurus’ A150 leads the field, followed closely by models from Parasound, B&K, and NAD. GREAT KANE: Video guru Joe Kane takes the high-end road on projection TVs, line-doublers, color temperature, and more in our interview feature, “Citizen Kane.” [Kane’s regular column, “Image Conscience,” debuts on page 25.] D-MYSTIFYING: In “Feedback” (of all places), we **rattle** off the latest word on JVC’s upcoming D-VHS format, which is less digital VCR and more digital bit-stream recorder.

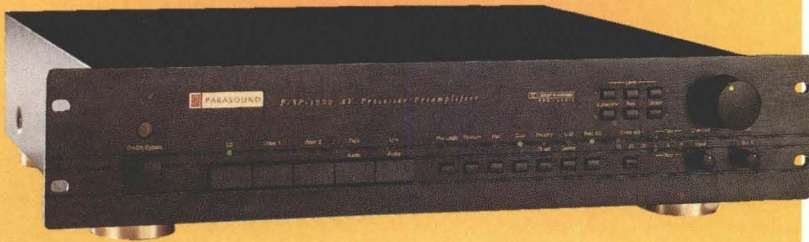
JULY/AUGUST

VIEW TO A THRILL: Marjorie Costello reports on the hottest technical features built into new direct-view TV sets.

Paranormal

While power amplifiers supply the brawn in a “separates”-based home theater, a preamp/processor provides the brains. That makes the P/SP-1000 (\$750) something of a young Einstein: “Offers most of the functions of a conventional stereo preamplifier along with fully integrated video switching, high-quality Dolby Pro Logic surround sound, and three surround modes for non-Dolby programming . . . internal construction is impressive . . . a terrific performer” (Dan Kumin, 7-8/95).

Parasound P/SP-1000



“This year’s direct-view lineup is more **evolutionary** than HDTV-caliber revolutionary,” Costello acknowledges, “but that doesn’t make it any less exciting.” Flatter dark-tint tubes and new comb-filter designs are where the action is, but several manufacturers don’t think consumer sets need to conform to the D6500° image standard. X-ACTING: “Eyes on the Prize,” Wes Phillips’ evaluation of the THX laserdisc program, includes comparisons of THX and non-THX discs; in most cases, Phillips comes away impressed. Words are not minced, however, in “Slipped Disc,” a companion piece on the problems that prompted a **recall** of the THX-approved *StarGate*. DIVISION STREET: Alex Retsoff cites **the Pilgrims** in “Divide & Conquer,” as he rates the utility of “separate” audio components. SECOND COURSE: Sony had signed on to become the second provider of DSS hardware, and “Fast Forward” **leaks** some details

on the company’s upcoming systems. That column also sketches the major issues in far-reaching deregulatory telecommunications legislation. LIQUID ASSETS: In “Off the Air,” Seagram Co.’s purchase of Universal Pictures prompts M. Faust’s **musings** on the new owner’s marketing opportunities. “We can assume,” Faust comments, “that Universal is unlikely to be asked to remake *The Lost Weekend* or *The Days of Wine and Roses*.”

SEPTEMBER

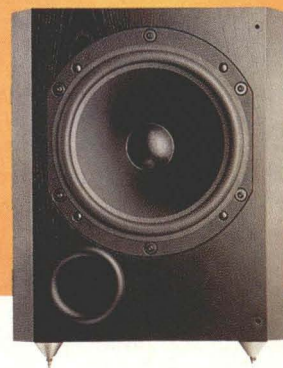
FACTS OF LIFE: Ken Pohlmann gets his **artifacts** straight in “Heaven Sent,” our exclusive test of Sony’s top DSS system, when discussing the progress

Bass Ball

Any subwoofer can rattle the china, but it takes a special sub to plumb the very depths of special effects and deliver musicality that makes audiophiles weep.

B&W 800ASW

The 800ASW (\$1,600) has the act nailed: “Finely crafted and fully outfitted . . . out-and-out excellent performance . . . basic sound quality was fantastic” (Tom Nounsaine, 6/95). **Honorable Mention:** Hsu HRSW12V (12/95).



Test, We Must

First DVD Player
Runco/Texas Instruments
DLP TV set
Mitsubishi plasma TV
Nintendo Ultra 64
A VCR with Index Plus+

VIDEO BEST OF THE YEAR

made with the MPEG video signal. "The improvements granted by MPEG-1½ are clearly visible to the naked eye—or, to be more precise, the artifacts we've seen with MPEG-1 begin to disappear with MPEG-1½," HEAVY BREATHING: In "Surrounded," Dan Kumin spends some quality time with a topnotch Dolby Surround AC-3 system, and comes up **hyperventilating**—"AC-3 sounded clearer, cleaner, and more dynamic than Dolby Pro Logic, with better bass and ambience. In most cases, the advantages weren't particularly subtle." STAGE FIGHT: Jim Willcox's "Battle Stars" explains how Sony's introduction of PlayStation sets the stage for a holiday-season **showdown** between this 32-bit videogame system and

Star Gazing

On-screen program guides are the wave of the future. And the StarSight system, as embodied in Magnavox's CB1500 black box (\$100 plus a \$15 setup fee and a \$47 annual service fee) is still the reigning champ: "In 'browsing' mode, you can watch a show while using the status bar and program-description 'pop-ups' to see, in detail, what else is on . . . a superior universal remote control . . . StarSight simply does more and asks you to do less" (Rob Sabin, 12/95).

Magnavox CB1500



Sega's 32-bit Saturn. Though he notes that many game enthusiasts may opt to wait for the release of Nintendo's near-64-bit Ultra 64 next spring, Willcox finds that PlayStation generally outperforms Saturn in "Face Off," a companion comparison review. MOTHER CODE: In the debut of his "Digital Reality" column, Ken Pohlmann gets us **thirsty**

LDiablo

Mits' engineers crossed off every last item on the audio/videophile's wishlist when they designed the M-V7057 laserdisc player (\$1,099): "Features an AC-3 output, digital special effects, variable video noise reduction, automatic side-changing, a dedicated CD tray, jog/shuttle controls on the face and remote, and a digital time-base corrector . . . as far as video performance is concerned, the V7057 **sizzles**" (Cliff Roth, 7-8/95). **Honorable Mention:** Pioneer CLD-S104 (5/95).

Mitsubishi M-V7057



as he lays out the fine points of MPEG data reduction, which is currently used by DSS and multimedia programmers and is slated for use in DVDs, HDTV, and other applications—"Yes, it's a vast, thick data milkshake out there,

and the straws we currently use to suck it up are very thin."

OCTOBER

JUST DIGIT: Rewriting the expected timetable, Panasonic and Sony release the first consumer-grade digital camcorders in the Digital Video (DV) format; details are sketchy at presstime, but "Fast Forward" promises immediate followup. That column also reports on a flurry of government activity on the issue of **TV violence**, as legislators queue up to favor or oppose the contro-



ESPs (Esoterics, Statements, Prototypes)

Dwin LD-2 line-doubler

EAD TheaterMaster home-theater controller

Hughes Light Valve projection TV

Lexicon 500T remote control

Magnavox GC2010 ghost canceler

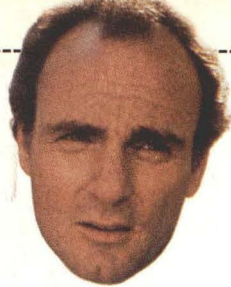
Toshiba TIMM multimedia monitor

By Design

Front-line speaker builder Infinity wiped the slate clean, focused on home theater, and came up with Compositions (\$4,448): "Each main speaker incorporates its own powered subwoofer . . . incredible sensitivity . . . fine tonal balance . . . dynamic range equals the best I've heard . . . spatially, the system performs a delightful vanishing act . . . the "Quadrapole" surrounds outperform conventional bipoles and dipoles . . . sets a new standard for entry-level high-end surround sound" (Anthony Chiarella, 1/96). **Honorable Mention:** Energy Reference Video System (3/95).

Infinity Compositions





Best Consumer-Electronics TV Commercial

DirectTV Sports

versial "V-chip." **NOISE REDUCTION:** In "Ghosts in the Machine," Mark Elson sees **snow** in the middle of *Lawrence of Arabia*—but it's just video noise, so he tells you how to get rid of it if it's intruding on your system. **FULL OF IT:** Dan Kumin discovers that Dolby Surround AC-3 has more twists than a **bowl of rotini** in "Surrounded, Part II," which examines whether AC-3's surround channels need to be served by full-

Suite Success

Assembling raw camcorder footage makes whipping up a batch of Peking Duck seem like microwaving some frozen egg rolls—unless you have Videonics' Edit Suite (\$799): "Capa-

ble of managing four playback

decks, a video mixer, a titler, and a recorder . . . performs assemble and insert edits . . . excellent open-architecture design . . . setup is fairly straightforward . . . a powerful and remarkably flexible edit controller with a very reasonable price tag" (Tim Liebe, 1/96). **Honorable Mention:** Fast Video Machine Lite (11/95).



range speakers. **OPEN WIDE:** Mel Neuhaus presents a brief history of widescreen movies in "Wide Scene," which is accompanied by photos of **vintage** movie posters. Our pick for "best foreign film"—Eastwood, Van

Cleef, and Wallach in *De Goede, De Harde, De Vagebond*. **MAKING THE UPGRADE:** Marc Horowitz's "Altered States" sets the facts straight on laserdisc players and Dolby Surround AC-3—"the **good news** is that any older laserdisc player with a PCM digital audio section can be retrofitted to deliver an AC-3 output." **OUT OF SPACE:** In "Digital Reality," Ken Pohlmann cracks the **textbooks** and gives us the lay of the pits and land on Sony's DVD, explaining how MPEG-2, EFM Plus, and CIRC Plus enable programmers to fit a high-quality movie on one side of a 5-inch disc.

NOVEMBER

PICTURE THIS: Digital camcorders dominate the news, as we explain the inner workings of the Digital Video format (in "DV Nation") and review the DCR-VX1000, Sony's top DV camcorder. "Picture performance was *spectacular*," Stewart Applegath raves. "It's clearly the best picture we've seen in a consumer-grade camcorder." Extra **irony** points are awarded, as DV's tape has the same width as the old 8-track audio format. **SAFE SPECS:** Just as we go to press, word from Tokyo confirms that Philips, Sony, and Toshiba have agreed to advance a single DVD standard. The accord follows a summer full of bickering and averts a full-fledged format **war**. Final specs are forthcoming, as is the new format's name. Ken Pohlmann's "Digital Reality" column covers the specs for Toshiba's SD family of DVDs, most of which will be used in

Big Time

Bigger isn't always better with picture tubes, since image quality can suffer—but you wouldn't know it from spending some quality time with Toshiba's 35-inch CN35D90 (\$2,799): "A superb power supply . . . the **WARM** color-temperature setting is very close to the industry standard . . . extremely high level of detail . . . the audio system was surprisingly good . . . simple for a pro to calibrate . . . a monster value" (Kevin Miller, 4/95). **Honorable Mention:** Mitsubishi CS-40505 (10/95).

Toshiba CN35D90



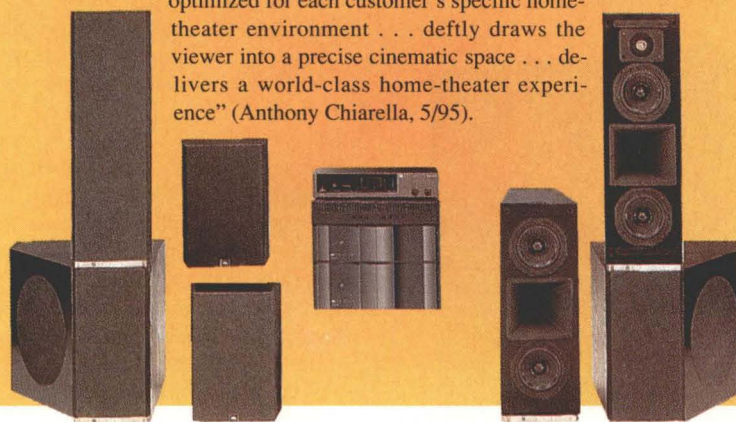
the new unified format. Coincidence or clever planning? You decide. **ON DECK:** Cliff Roth and Lance Braithwaite put the big magnifying glass on 10 affordable VHS Hi-Fi VCRs, searching for **sheer performance** but noting conveniences and nods to ergonomics along the way. Panasonic's PV-4562 takes the top prize, followed closely by models from Sony and Toshiba. **SCENE AND HEARD:** In "Making the Scene," six industry **experts** reveal what movie

World Beater

Memo—after selling fledgling software company to Bill Gates, buy Synthesis 3, JBL's purist 11-piece THX-certified surround-sound (and music) system (\$18,900): "Some of the components are derivations of JBL professional theater products . . . can be

optimized for each customer's specific home-theater environment . . . deftly draws the viewer into a precise cinematic space . . . delivers a world-class home-theater experience" (Anthony Chiarella, 5/95).

JBL Synthesis 3



VIDEO BEST OF THE YEAR

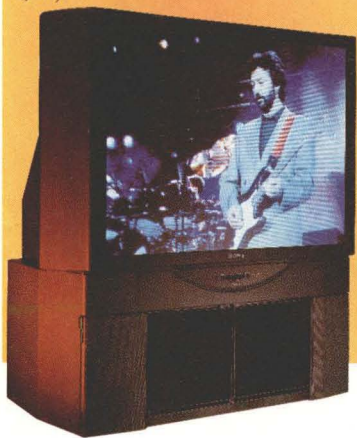
scenes they use to judge video and audio performance. Top sources include *My Fair Lady*, *Remains of the Day*, *Goldfinger*, and *The Mask*. **POLE POSITION:** In "Surrounded, Part III," Dan Kumin compares conventional mono-pole and **two-faced** dipole surrounds in an AC-3 system, and finds that dipoles remain the surrounds of choice. **MIRROR, MIRROR:** Runco seeks to push the projection-TV envelope, as "Fast Forward" reports that the company has formed an alliance with Texas Instruments to put TI's mirror-based Digital Light Processing technology in upcoming sets. That column also heralds DSS's upgrade to MPEG-2 images—and notes that some owners of Sony's first DSS systems are having problems with visible picture artifacts. At presstime, Sony, DirecTV, and USSB are implementing an **emergency** software "patch" that's said to fix the problem.

Rear Admiral

Big-screen rear-projectors continue to make big leaps in image quality, as Sony's 46-inch KP-46V25 (\$3,000)

Sony KP-46V25

offers the NTSC STD (standard) color-temperature setting . . . looks good straight out of the box . . . the power supply does a good job of controlling light output . . . shows sharp images and very good detail" (Peter Barry, 1/96).



Movies About Consumer Electronics

Outbreak

Labyrinth

Cliffhanger

Legends of the Fall

The Specialist

I Love Trouble



MUSCLE SHOWS: In "Off the Air," Art Daudelin introduces readers to the **beefy** Karla Nelson and the singular world of Amazonic Wrestling.

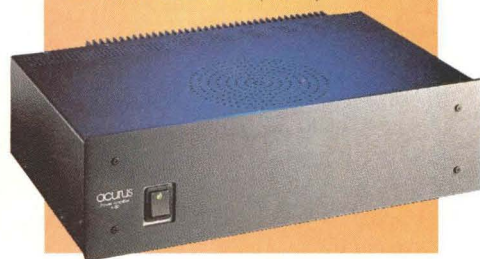
DECEMBER

A 3-HOUR TOUR: Rob Sabin reveals everything you ever wanted to know about StarSight and VideoGuide—and then some—in "Tour Guides." The **simplicity** of StarSight operation earns that system the big nod. **AT THE BELL:** Yamaha's RX-V2090 A/V receiver and DDP-1 add-on AC-3 decoder pull a **tag team** on Dan Kumin and pin him to the home-theater mat—"AC-3 sounded flat-out terrific, Dolby Pro Logic was excellent, and the power plant was very capable. I didn't hear anything resembling a data-reduction artifact," Kumin puffs. **THE FIX IS IN:** "Fast Forward" reports that the software patch devised by Sony and DSS's programmers has indeed corrected the artifact problems suffered by, in Sony's estimation, "2 percent" of consumers who purchased the company's SAS-B1 or SAS-BD1 DSS system. That column also relates our first experience with Mitsubishi's **beguiling** plasma TV technology. **HOW LOW CAN YOU GO:** Tom Nounsaine finds out by testing 12 powered subwoofers costing \$750 to \$1,000. Hsu's HR-SW12V takes top (or is that bottom?) honors, with models from Velodyne, Phase Technology, M&K, and Cerwin-Vega **pounding** convincingly.

Power Play

Two or three stereo power amps can take a home-theater system to the next level. If the amps are A150s (\$695 apiece), they can take it to the next dimension: "Constructed very solidly . . . delivers *tons* of punch . . . outstanding dynamics . . . a very fine amp and a top value" (Dan Kumin, 6/95). **Honorable Mentions:** B&K ST3030 (6/95), Parasound HCA-806 (12/95).

Acurus A150



YOU'LL TIDE: Andy Wickstrom plunges right into his enthusiastic review of *Crimson Tide*—"Damn the p.c. mongers, it's full **testosterone** ahead in *Tide*, a riveting Cold War drama that isn't chilled by its curious timing." **JUST EDIT:** The year comes **full circle**, as Cliff Roth reaffirms—in his "VIDEO Test" of Panasonic's PV-DV1000 digital camcorder—the vital role soundtracks play in videos recorded with a camcorder. "The DV1000 lets you record CD-quality 16-bit stereo audio or *four* channels of slightly lower quality 12-bit audio," Roth reports. "This is the one camcorder for videographers who need truly high-quality audio in their productions." ■

Front Row

Bang for buck, Barco's 701 (\$8,995) heads to the front of the value-minded front-projection class: "Doesn't require an outboard controller . . . relatively easy to set up . . . features an extremely well controlled power supply . . . produces superb detail . . . video noise was extremely low . . . always delivers sharp, exciting images" (Peter Barry, 6/95).

Barco 701



"THIS SYSTEM EMBARRASSES MANY HOME THEATER SPEAKER COMBOS COSTING SEVERAL TIMES ITS PRICE"

- Corey Greenberg, *Home Theater Technology*, Volume 2, No. 7



6 Product of the Year Awards in the past year

16 Critic's Choice Awards in the past year

60 Awards since 1990

\$1,546*

gets you this stunning

home theater system consisting of:

MiniMk3, CC-300, ADP-150, and PS-1000†.

Spectacular performance from Paradigm...

the number one choice for critical listeners!



Atom, CC-50, Micro, PDR-10†

\$796*



Titan, CC-150, ADP-100, PDR-10†

\$1,076*



9seMk3, CC-500, ADP-150, PS-1000†

\$1,966*



Esprit/BP, LCR-450, ADP-150, PS-1200†

\$2,716*

Paradigm
ENGINEERED FOR BETTER SOUND

Paradigm's advanced R&D and superior component technology yields the ultimate in home theater sound. Visit your nearest **AUTHORIZED PARADIGM DEALER** and listen to any of these sensational systems today!

For more information on other fine Paradigm speakers visit your nearest **AUTHORIZED PARADIGM DEALER** or write:
AUDIOSTREAM, MPO Box 2410 Niagara Falls, NY 14302 (905) 632-0180
In Canada: PARADIGM, 101 Hanlan Rd. Woodbridge, ON L4L 3P5 (905) 850-2889

*Manufacturer's FMV retail price.

†All systems shown include a powered subwoofer.

CIRCLE NO. 46 ON READER SERVICE CARD



**Stepping out with the year's
best and brightest home videos**



CALL 1995 THE YEAR OF LIVING INDEPENDENTLY. Two of the 10 most entertaining films that made it onto our best of "SoftWire" list sidestepped Hollywood's moviemaking-by-committee process, and their success can only spell good news for budding auteurs and movie audiences alike. 1995 was also a good year for sights and sounds, as the quality of home-video releases advanced by leaps and bounds.

BEST ENTERTAINMENT

PULP FICTION

Any way you cut it, *Pulp Fiction* (Miramax/Image) is a killer slice of entertainment. The world you're planted in is frightening, but the dialogue is delirious and the pervasive violence is off-handed in the best black-comedy traditions (Andy Wickstrom, 11/95).

ED WOOD

It's hard not to be touched by *Ed Wood* (Touchstone), director Tim Burton's poignant salute to "The Worst Director of All Time." Johnny Depp excels in capturing Wood's feckless determination and insanely cheerful optimism (M. Faust, 5/95).

APOLLO 13

Lump-in-your-throat heroism doesn't get much better than



the true-life events recreated in *Apollo 13* (MCA/Universal), and director Ron Howard blends the requisite tech talk into the drama without compromising pace (Andy Wickstrom, 1/96).

NATURAL BORN KILLERS

Natural Born Killers (Warner), Oliver Stone's alleged satire about the media's fascination with criminal lowlifes, exhibits an unabashedly bravura visual style that's bound to keep you dazzled (M. Faust, 3/95).

CLERKS

The characters in *Clerks* (Miramax/Image) may be pithier than anyone you've ever been rung up by at the local mini mart, but their snappy takes on life's little details show why the film bagged awards at both Sundance and Cannes (Mike Mettler, 12/95).

INTERVIEW WITH THE VAMPIRE

Neil Jordan's dashing cast of leading men (Tom Cruise, Brad Pitt, Antonio Banderas, Christian Slater) fills *Interview With the Vampire* (Warner) with homoerotic subtext—and mainstream audiences (as well as Anne Rice) still devoured it (Josef Krebs, 9/95).



THE FRED ASTAIRE/ GINGER ROGERS COLLECTION

The wonderful *Fred Astaire/Ginger Rogers Collection* (Turner/Image) contains four of Astaire and Rogers' best films, including *Top Hat* (1935). As the Cole Porter song goes, they're the tops (Josef Krebs, 3/95).

THE SHAWSHANK REDEMPTION

A fascinating study of a 20-year friendship between two convicted murderers, *The Shawshank Redemption* (Columbia TriStar) examines the real-life ghouls that belong to that faulty equation known as the human condition (Mel Neuhaus, 9/95).

THIRTY-TWO SHORT FILMS ABOUT GLENN GOULD

Glenn Gould, the late pianist, was an original who goaded his audience into rethinking how music should be interpreted. *Thirty-Two Short Films About Glenn Gould* (Columbia TriStar) examines his genius, eccentric character, and legacy (Sol Louis Siegel, 4/95).

DISCLOSURE

Disclosure (Warner) puts Michael Douglas, Hollywood's favorite victim in the battle of the sexes, back in the thick of it. This time, he's tangled in a web of high-tech office politics and determined to fend off the advances of professional spiderwoman Demi Moore (Andy Wickstrom, 9/95).

BEST SIGHTS & SOUNDS

THE RED SHOES

The Red Shoes (The Criterion Collection) is a full-motion visual coffeetable book for the '90s. A pristinely restored 35MM Technicolor print, alternate-au-

dio-track commentary, and scores of behind-the-scenes shots make this all-CAV LD presentation one of the best ever (Mel Neuhaus, 6/95).

PLATOON

Based on his grim experiences as a grunt in Vietnam, *Platoon* was Oliver Stone's breakthrough 1986 film. And Pioneer Special Editions' gloriously expensive, oversized-scrapbook LD presentation (\$130) makes this trial-by-fire a truly overwhelming experience (Andy Wickstrom, 1/96).

ROBOCOP

The THX-approved *RoboCop* LD (The Criterion Collection), which restores footage cut from Paul Verhoeven's original 1987 release, shimmers with clear metallic colors and Basil Poledouris' pulsating score. Extensive supplements include a truly gruesome storyboard that's A-B'd with its filmed counterpart (Mel Neuhaus, 10/95).

STAR WARS TRILOGY

The THX-certified presentation of *Star Wars*, *The Empire Strikes Back*, and *Return of the Jedi* (FoxVideo/Image; CLV discs, VHS) is a stunner: The image transfer is simply remarkable, and the surround sound is totally involving, a marked contrast to the erratic pre-THX versions (Andy Wickstrom, 1/96).

TRUE LIES

Though its story leaves a lot to be desired in the p.c. department, *True Lies* (FoxVideo/Image) thunders with jaw-rattling surround sound. The action sequences are visually stunning, with helicopter gunships and explosions serving as uncredited costars (M. Faust, 2/95).

EAGLES: HELL FREEZES OVER

One of the best-sounding videos I've ever heard, *Eagles: Hell Freezes Over* (Geffen/Image) showcases the triumphant reunion of the wildly popular California country-rockers. The band's trademark vocal harmonies come across strong and clean, and intricate acoustic-guitar interplay keeps *Hell* flying high (Mike Mettler, 6/95).

THE LION KING COLLECTOR'S EDITION

This lush special-edition LD has it all: THX-approval, AC-3 encoding, an all-CAV layout, a gorgeous transfer, three full sides of supplements, and Disney's first-ever alternate-audio track with commentary from the directors (Ken Korman, 12/95).

JUDY GARLAND: THE GOLDEN YEARS AT MGM

The visuals in *Judy Garland: The Golden Years at MGM* (MGM/UA) are just



fabulous, especially in *The Pirate* (1948), which accents director Vincente Minnelli's exotic use of color in lighting, sets, and costumes. The richness of the LD set's extras—stills, rehearsals, radio appearances, and more—just add to the glory (Josef Krebs, 7-8/95).

THE TERMINATOR

While *T2* certainly deserves every bit of praise it gets, the THX-approved LD of *The Terminator* (Hemdale/Image) is a wonderful reminder of how much A-level excitement director James Cameron generated on a B-picture budget. The images are uncommonly sharp, and the digital mono soundtrack packs an unusual punch (Andy Wickstrom, 7-8/95).

STAR TREK GENERATIONS

Generations (Paramount) may just be the most satisfying *Star Trek* film to date. Outrageous surround effects and an outstanding anamorphic widescreen image make the THX-certified, AC-3-encoded LD an excellent combination of visual acumen and human drama (Ken Korman, 10/95).

BEST MULTIMEDIA

REMEMBER WHEN YOU THOUGHT *PONG* WAS INNOVATIVE? THESE five CD-ROMs pushed the multimedia envelope in 1995.

MONTY PYTHON'S COMPLETE WASTE OF TIME

Enough abject anarchy, wacky sketches, and inspired lunacy to wake a dead parrot (Ron Goldberg, 4/95).

PUPPET MOTEL

Musician/performance artist Laurie Anderson guides you through a revolutionary world populated by riveting live-performance clips and a cursor that magically morphs into the action (Josef Krebs, 9/95).

GADGET

An eye-catching interactive movie that

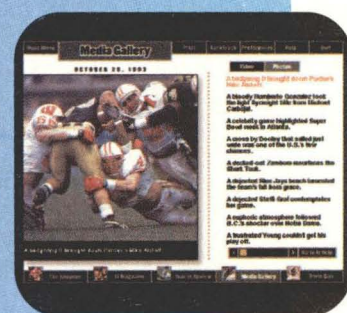
puts you on a futuristic train with a cast of cold yet imaginative characters. Your task: Search for five gadgets needed to finish building a spaceship (James K. Willcox, 6/95).

SPORTS ILLUSTRATED'S MULTIMEDIA ALMANAC, 1995 EDITION

Finally—a totally *fun* reference disc, with splashy graphics, catchy music, and exciting videos; includes extensive coverage of events like 1994's World Cup and the '94 Winter Olympics (Ken Korman, 4/95).

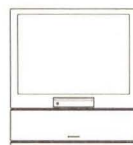
BOB DYLAN HIGHWAY 61 REVISITED

No blowin' in the wind here—*Revisited* features Sir Bob's complete lyrics, interview footage, demos, and a complete coffeehouse performance at his old stomping grounds in Greenwich Village (Ron Goldberg, 6/95).



Worker ants spend their entire lives bringing home sustenance to the queen and her young.

(We apologize if this sounds familiar.)



Work, work, work. And what do you have to show for it? We'd like to suggest the most thrilling home entertainment experience ever. A Pioneer® Dolby® Surround AC-3™ Audio/Video Receiver and LaserDisc Player. The first in the industry, our VSX-D3S receiver with



advanced AC-3 technology gives you the distinct pleasure of hearing six independent digital channels for true surround sound. Plus, all the power you demand from an advanced home theater system. The result? With our AC-3 receivers and AC-3 compatible LaserDisc players, your home theater can deliver



exciting digital surround sound, which until now was heard only in top theaters. Call us at 1-800-PIONEER to find out more about our complete range of home theater equipment and for a dealer near you. After all, worker ants don't get much time off. So you might as well make the most of it.

A D V A N C E D H O M E T H E A T E R



Public Advocate #1

In a storm of deregulation, FCC Chairman Reed Hundt battles for the public interest

AS 1996 ROLLS IN AND WHAT PROMISES TO BE A WILD AND WOOLY presidential campaign kicks into high gear, Reed Hundt, chairman of the Federal Communications Commission, regularly joins President Clinton and House Majority Leader Newt Gingrich in the hot seat. In the last year alone, Hundt

has weathered fiery attacks by the likes of congressmen, network and cable broadcasters, even his fellow FCC commissioners. At issue are his often controversial views on the FCC's role as public advocate; recent debates on FCC downsizing, auctions for broadcast spectrum, and TV violence have left Hundt a little charred around the edges. But the Chairman remains energetic and focused on his mission.

Born in Michigan, Hundt's legislative career began during his tenure at Yale University's School of Law (Class of 1974), where he served on the board of the distinguished Yale Law Journal. Before Clinton appointed him FCC Chairman in 1993, Hundt was a partner in the Washington law office of Latham

& Watkins, a national and international firm. His specialty was legal and regulatory issues in emerging technologies such as wire-

less communications, direct-broadcast satellites, and interactive television.

Hundt's detractors claim he continually crosses the line between public interest and personal agenda. And some of his positions seem to be in a state of evolution, particularly regarding spectrum auctions and digital television. But as you'll discover in his sometimes prickly conversation with VIDEO's Chuck Tannert, Hundt articulates his views on serving the public interest with a passion that often borders on the fanatical.

VIDEO: The telecom bill includes some of the most sweeping legislation in over 60 years. Is the deregulation it mandates long overdue, or a case of "too much too soon"?

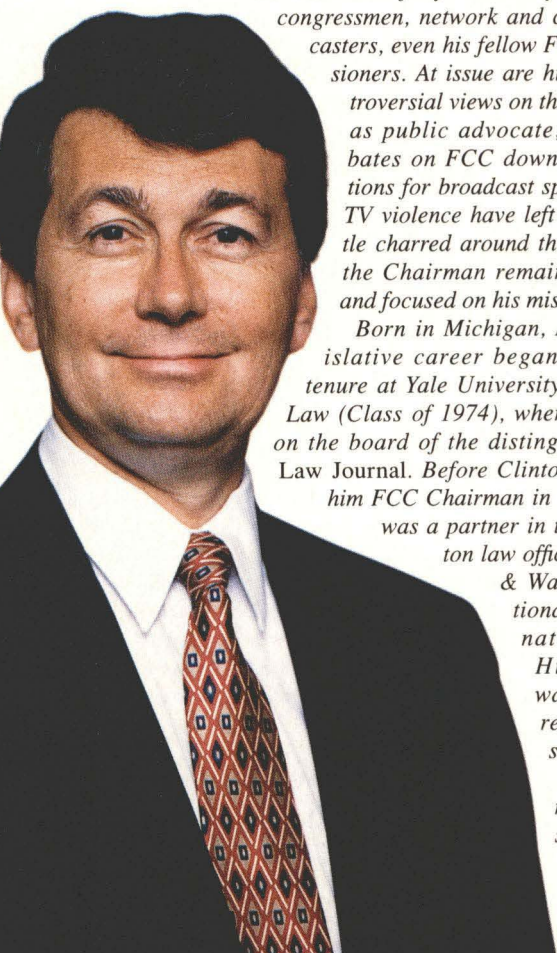
HUNDT: I think the bill goes too far in some respects, and in others it's long overdue. It's long overdue for us to open the video market to telephone-company competition—no question about that. It goes too far in terms of permitting one company to own all of the radio stations in any one local market.

VIDEO: Several of the legislation's provisions appear to favor large communications companies. Won't that inhibit competition and, by extension, hurt consumers?

HUNDT: An awful lot of money was spent lobbying on the bill, so impartiality is a serious concern. But it can still turn out alright. Congress can remedy the situation in conference, if they want to.

VIDEO: Will the legislation's changes to the laws governing media ownership result in too much power in the hands of too few?

HUNDT: Potentially—particularly those provisions about ra-



dio-station ownership. There's no reason for that kind of media concentration, and we shouldn't allow it.

VIDEO: The FCC is facing some stiff budget cuts. How will the agency's operations suffer if all of the suggested cuts are approved?

HUNDT: Yes, we're facing cuts. It's extremely unfortunate and ill-advised, verging on the incomprehensible, that we could be given all of these new duties and then have our legs chopped out from under us. If the Senate budget of \$160 million plus goes through instead of the House's \$186 million, the agency will be in very serious trouble as an operating organization. Our ability to adequately perform our duties will be greatly jeopardized. I don't even want to think about how bad a time we'll have. The public should be irate and furious at any congressman or congresswoman who'd cripple us at the very time we need to be the watchdog of competition and the advocate of the public interest.

VIDEO: Is deficit reduction the only

motivation for the cuts, or is another political agenda at work?

HUNDT: I don't know. I can tell you that a variety of people have told me that certain members of the new Congress want to eliminate the FCC because it's an advocate of the public in-

HDTV is a very marginal venture, because standard-definition digital TV will be just as exciting visually.

terest. But I have no idea. I can't explain the irrational.

VIDEO: Some have suggested that these cuts are just the first step in dismantling the FCC.

HUNDT: I'm not going to back away from advocating the public interest, period! That's our job. I'm not going to do the job badly because I can't necessari-

ly please each individual person.

VIDEO: How would the FCC's responsibilities change if a Republican were elected President next year?

HUNDT: I don't speculate about who'll be elected President. I'm glad Bill Clinton was elected; he gave me this job. But the FCC is an independent agency and we shouldn't base our activities on future elections.

VIDEO: Are you satisfied with the progress that the developers of HDTV are making?

HUNDT: I think the Grand Alliance has done some fantastic work, and on November 28, I intend to announce the completion of their testing. We'll have discovered that digital television is going to work. We'll also have discovered that HDTV is a very marginal and possibly superfluous venture, because [standard-definition] digital television is going to be just as exciting visually as high-definition. So there won't be any point to devoting most of your bit stream to high-definition. It would be

THE DEREGULATOR

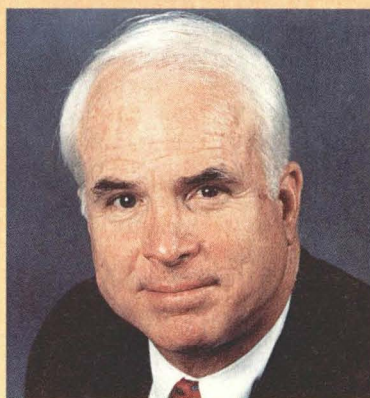
An interview with deficit-buster Senator John McCain

ON THE ONCE-VOLATILE ISSUE OF SPECTRUM auctions, Senator John McCain (R-AZ) was the man in the ring with the FCC and its chairman, Reed Hundt. First elected to the Senate in 1986, McCain serves on the Committee on Armed Services, the Committee on Commerce, Science, and Transportation, and the Committee on Governmental Affairs. He's also chairman of the Senate Committee on Indian Affairs and chairman of the International Republican Institute. In addition to auctions, McCain has strong opinions on TV violence and the future of the FCC, as VIDEO's Chuck Tannert found out.

VIDEO: Are you surprised that the FCC has decided to auction off the 110-degree orbital slot that PrimeStar was hoping to buy outright?

McCain: First of all, I'm very pleased—though I'm a bit surprised that two of the commissioners voted against it. The immediate outcome is that several hundreds of millions of tax-

payer's dollars will be saved. I'll continue to pursue the issue of spectrum auctions and work with Senator Ashcroft [R-MO] to fashion legislation



that'll make sure that wherever possible, auctions will be conducted.

VIDEO: To decrease the deficit?

McCain: Yes indeed, so we can reach a balanced budget by the year 2002.

VIDEO: Don't auctions simply favor big, established companies?

McCain: My only comment is that we have a \$5 trillion debt. So whenever possible, we need to maximize the value of those properties that belong to American taxpayers. This is one of those situations—spectrum is a very valuable commodity.

VIDEO: Does this decision signify the beginning of the end of the FCC?

McCain: Not necessarily. But I think it may signal the beginning of the end for lotteries.

VIDEO: What should the role of the FCC be?

McCain: I'd like to see its role minimized. I'd like to see a telco bill that's purely deregulatory, so we can dramatically reduce the number of areas in which the federal government is directly involved.

VIDEO: The telecom bills include some sweeping legislation.

an unnecessary use of your bit stream.

VIDEO: Will you be putting HDTV on the back burner, like Europe has, or are you dropping the concept all together?

HUNDT: We're talking about the fact that the Grand Alliance is going to give everyone the ability to deliver 20 million bits per second over the air. You can have 18 million bits devoted exclusively to a 1,080-line image, which is called high-definition, but there won't be any point to that for most people because 480-line resolution is going to get you just as nice a picture. So why not have three channels simultaneously at 480 lines as opposed to one channel with 1,080 lines? They'll look the same. The notion of high-definition as a single or so-called second channel for broadcasters is defunct.

But HD has become something better, which is that 20 million bits per second. Anyone ought to be able to use it any way they want in the marketplace, and government ought to get out of the way. Let people send whatever they want down that Mississippi River of digital bits that'll be pouring over the

air. If the government does as little as possible here, we'll find that the market will drive prices down, and consumers will be happy to get over-the-air transmission of many different digital channels. They'll pay a couple of hundred bucks for a box, or they'll buy a new TV that'll cost about \$80 more than a

We could no more get industrial policy right than we could develop a grand, unified theory of physics.

conventional analog TV to watch digital as well as analog channels. These things will all work out in the marketplace if we commit to letting it decide how things develop.

But the FCC still has a lingering urge to craft an industrial policy. One of my missions here is to extirpate that kind of presumption on the part of the commission. We could no more get industrial policy right than we could develop

a grand, unified theory of physics.

VIDEO: Is a smooth transition to digital TV possible in this economy and in this political climate?

HUNDT: When you say "smooth transition" it implies that we should have some kind of industrial policy. What we ought to have is an absolute commitment to letting the market decide the way broadcasters and their viewers go digital. The FCC should say "We ought to rely on the market," over and over again. We shouldn't try to predict a date on which analog TV signals will be turned off, or a date on which people will no longer want analog channels. It just may be that analog will exist forever contemporaneous with digital. That could happen, if it suits consumers. The FCC must say, "We will not try to predict the unpredictable. We will not try to manage the unmanageable. And we will not assume that we can tell the future."

I thought that one of the craziest rules we had here at the FCC was the prime-time access rule. Under that rule, the FCC told networks that they couldn't

McCain: I obviously like the House bill a lot better. I voted against the Senate bill; it's very regulatory in nature, and I hope we'll see significant improvement in future drafts.

VIDEO: Should the FCC mandate high-definition television?

McCain: The FCC is already sort of overseeing HDTV. There's very little doubt that they'll move forward very rapidly on the issue of HDTV.

VIDEO: FCC Chairman Reed Hundt has said that the FCC is going to let the market decide HDTV's fate.

McCain: That's the best way to go.

VIDEO: Should government control TV broadcasters in terms of content—restricting violence or mandating educational fare, for example?

McCain: That's a very difficult issue. But if broadcasters don't show more restraint, there's going to be action by Congress. One option I vehemently favor is the rapid introduction of the so-

called v-chip. It lets parents make the decision about what their children watch, as opposed to government agencies doing it. Parents know what's better for their children and themselves than we do.

VIDEO: Is there too much violence on television?

McCain: It's pervasive. And any intelligent person would conclude that standard television fare appeals to the lowest common denominator. But I don't believe in government censorship. I'm truly at a loss as to a solution, except for the v-chip.

VIDEO: As new technologies emerge, is federal help needed to ensure equal access to information?

McCain: Traditional markets should take care of the spread of new tech, but I'd be more than happy to support a program that passes out vouchers to those people who were clearly in need.

VIDEO: Do broadcasters have a responsibility to the communities they serve?

McCain: They all must sign a statement when they receive their licenses stating that they'll conduct a certain amount of their programming in the public interest. We should see that they're more committed to that goal. When some cartoons are judged as educational programs for kids, then clearly the issue needs a second look.

VIDEO: Describe your vision of the FCC's role in the 21st century.

McCain: In an ideal world, the FCC would provide technical assistance and act like a traffic cop, directing movement up and down the information highway.

VIDEO: Including the World Wide Web and the Internet?

McCain: It's appropriate to have some agency that's involved in providing technical assistance and pointing out to the Congress and the American people the best way to make improvements. But most of it should be left to the free market. Let the people decide what's best. ■

broadcast their own stations during 1 hour of primetime. The FCC shouldn't be meddling in primetime! Similarly, we shouldn't tell them that they have to send a 1,080-line image instead of several 480-line images. Why would we want to rig the market that way, when it would mean that viewers could only have one signal instead of three or four at the same time? Why in the world would we want to tie everyone's hands like that? If Michael Jordan can make three or four shots in a row, why not let him have the ball? If networks can make three, four, or five channels or programs that can attract an audience all at the same time of night, let them try to do so. The government shouldn't say, "No, we don't want that" for this or that reason. I can't even imagine what the reason would be.

VIDEO: The FCC seems to have taken a 180-degree turn in its opinion of having an industrial policy.

HUNDT: One reason for the change is that my colleagues on the commission and I think that markets—not bureaucrats—should set industrial policy. A strong pro-competition policy coupled with clear, definite public benefits guaranteed from the communications sector is the right way to build the economy and make sure that all Americans can participate in the communications revolution.

VIDEO: Are you satisfied with the course of the debate on spectrum auctions?

HUNDT: We've had approximately 740 votes of the full commission in the 2 years since I've been at the FCC. I've been in the minority only about three times, plus or minus a couple, and those three have been on issues of auctions. I've voted for auctions on a handful of occasions and not necessarily gotten a majority of the votes. Almost every other time I've been in the majority—almost every other time we've had a unanimous vote. It's the only issue that I haven't been able to get on the same page in the book as the others. However, we're making progress. I thought the commission's decision [on October 16] to have an auction of the DBS spectrum was real progress.

VIDEO: The 110-degree orbital slot that PrimeStar and their cable-industry

parents have been pursuing will be auctioned off.

HUNDT: Yes. The "Advanced" slots will be auctioned off on January 18. If the cable industry wins the auction, they can make their launch date; they won't be delayed by a minute. It'll be a 1-day auction. The people who want to participate will show up on the 18th with a checkbook and the best man or woman will win.

VIDEO: Will auctions—which, by definition, favor large companies with deep pockets—stifle fair competition?

The only thing that these comparative hearings tell you is who has the best lawyers.

HUNDT: No, because there are two key parts to any good spectrum policy: First, we ought to auction the spectrum, and second, we ought to allow flexible use of it. Broadcasters should be able to use what they purchase in an auction any way they want. If the FCC allows that, we're going to find that, over time, it becomes possible for anyone with a good idea to attract investors and gather capital to get some spectrum in an auction. Because there will be flexibility of use, broadcasters won't have to hire lobbyists to change our laws on use. Once they get spectrum, it can be used any way they want. That's going to open up the door to all sorts of entrepreneurship and innovation in spectrum use. We're also going to find that the FCC has unwittingly, unintelligibly, and unintentionally been constraining the use of spectrum by our own processes. If we manage to turn ourselves around 180 degrees and go with auctions and flexible use, we'll initiate a huge boom in the economy.

VIDEO: Are auctions the best way to deal spectrum?

HUNDT: The only other ways are so bad they're pitiful. One is through lotteries, and the laws of chance guarantee that someone who has no idea will win over somebody who has a good idea. Hardly anyone has good ideas, and

most people have no idea. You get lawyers like me who win. That isn't right! We don't have ideas; all we know how to do is file forms. Lotteries are a horrible idea.

The second way is to have comparative hearings. Comparative hearings are battles among lobbyists and lawyers, and the only thing they tell you is who has the best lawyers. Hearings are a great way for lawyers to make money—not to pass out licenses.

Auctions are the only way to get licenses out. With one exception: Some spectrum should be set aside for no licenses at all. People should just share it. The FCC is setting aside more spectrum for shared use; anyone who wants to use it can use it. The only requirement is that they can't interfere with each other. It ought to be like a public park with no admission fee. Anyone can go in and visit for free.

VIDEO: How are decisions regarding spectrum allocation usually made?

HUNDT: Decisions are made through rulemaking or Congressional action. It's Congress' decision to give broadcasters \$37 million worth of spectrum for digital broadcasting; that's not our decision. But when Congress doesn't act, then we allocate the spectrum for private use by way of rulemaking.

VIDEO: A recent report by the UCLA Center for Communications said that TV violence is declining.

HUNDT: That's not what that report said. It was much more interesting than that. They said the real concern about violence in primetime is with the TV movies. And they had eight or nine recommendations. That's the kind of report—performed by an independent organization with academic freedom—that ought to be done to evaluate how much educational programming for kids, and how much indecency, there is on TV. An independent institute with academic freedom should evaluate educational programming for kids and indecency and violence every year, and give grades to every broadcaster. If you flunk, you better correct it in the next semester or you'll lose your license. That's the kind of idea I'd like to work on.

VIDEO: Is there too much violence on television?

SOLID™

WHEREVER
THEY
STAND,

THEY'RE

OUTSTANDING.

It doesn't matter where you put them, what you use them for, or how you decide to mount them, Solids perform.

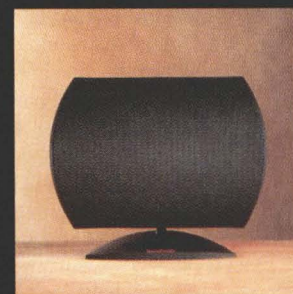
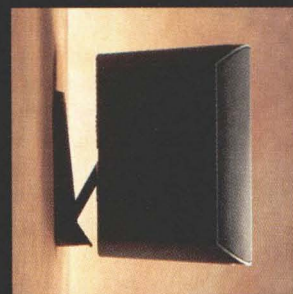
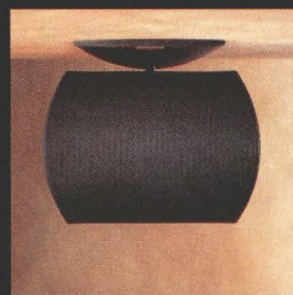
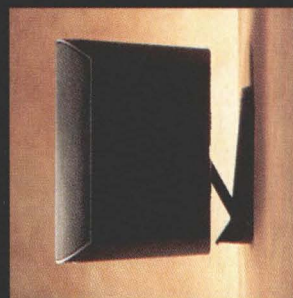
■ Why? Because they're acoustically engineered by world-renowned B&W

Loudspeakers. The same people who created the legendary B&W Matrix 801 – the speaker used for nearly eighty percent of all classical recordings.

■ Solids produce superb, high quality sound that transcends their size and price. The HCM1, for example, can handle an impressive 150 watts of power. So you can crank up the volume with minimum distortion. It's also magnetically shielded and equipped with acoustic voice-matching technology. To ensure accurate, true-to-life sound – for music or movies.

■ And Solids' clean silhouette and small footprint means they fit into your room without cramping your style. Place them horizontally or vertically on a shelf, floor or table. Even attach them to your wall or ceiling. Then sit back and savor the sound.

■ Call 1.800.370.3742 for the name of the Solid dealer nearest you. You'll discover that Solid speakers deliver outstanding performance and value – wherever they stand.



SOLID™

They play big.

**Rock Solid Sounds
of America**

54 Concord Street
North Reading, MA 01864-2699
1.800.370.3742 TEL
1.508.664.4109 FAX

CIRCLE NO. 49 ON READER SERVICE CARD

HUNDT: I consider almost any violence more than I want my kids to watch. But do parents have a way of *knowing* what's violent and what isn't? Do they have a way to protect their kids from it? And do parents have some positive alternative, like educational TV for kids? This is like a seesaw: We need to see one side go up, that's educational TV for kids, and we need to see the other side go down, that's violence and indecency on TV.

VIDEO: How would you characterize the quality of television programming in general?

HUNDT: A majority of Americans consistently report in opinion polls that there's too much violence on TV, that TV entertainment shows are worse than they were 5 years ago, and that violence on TV is a significant cause of the breakdown of law and order in our country. It's time to listen to Americans and stop disregarding their views.

VIDEO: Is your idea of grading broadcasters and threatening license revocations contrary to the FCC's new hands-off, let-the-market-decide policy?

HUNDT: I'm in favor of promoting private competition and public benefits as the twin goals of the FCC. This commission has been the most pro-competitive, deregulatory, rules-simplifying market-oriented commission in history. We've gotten rid of the financial-syndication rule and the primetime-access rule. We're going to raise radio and TV ownership limits. We're considering eliminating network-affiliate rules. We've moved to pure price-cap regulations for telephone companies. We've held that AT&T is no longer a dominant long-distance carrier, and we've greatly simplified their regulations. We've struck deals with local cable companies that greatly simplify cable regulation, while guaranteeing reasonable prices. We've eliminated licensing delays in all areas. We've greatly simplified the licensing process in satellites. And we've moved to auctioning the airwaves, and shortened the time of getting licenses from 3 years to 3 months when we use auctions.

At the same time, we stand for guaranteed deliverables from the communications revolution. For example, all American children ought to have access to free over-the-air educational TV

in guaranteed amounts from each TV station.

VIDEO: Do broadcasters have a responsibility to the communities they serve?

HUNDT: Broadcasters use the public airwaves, so they ought to deliver public benefits. One such benefit is free over-the-air entertainment, and in this respect broadcasters ought to listen to the dissatisfaction the public has with the downsides of their programming and be praised for the positive shows they broadcast. In my personal view,

The FCC should not be the Federal Consulting Psychologists on Children's Issues Commission.

shows like *Chicago Hope*, *ER*, and *Murder One* are as well crafted, well acted, and well conceived as any entertainment in American culture. On the other hand, as long as broadcasters use the public airwaves for free, they ought to be glad to meet minimum duties of delivering educational TV to kids.

The FCC should not be the Federal Consulting Psychologists on Children's Issues Commission. On the other hand, it's our responsibility to craft fair and simple rules that'll guarantee that broadcasters deliver quantity and quality when they do their duty of educating our children with television, for free, over the air.

VIDEO: Does the federal government have a responsibility to fund public broadcasting?

HUNDT: The purpose of government is to do what needs doing. If you want stations to be devoted primarily to education and information, which is the reason for public broadcasting, then they'll run out of money without public funds.

VIDEO: How would you answer those who say that our dire need to cut federal spending makes public TV expendable?

HUNDT: It's ludicrous to say that our

country is not rich enough to spend a couple of hundred million dollars a year on guaranteeing the survival of TV stations that are dedicated to nonpartisan education and information.

VIDEO: New technologies create new conduits for information. Is federal help required to ensure that all Americans have equal access to it?

HUNDT: Take a look at the PC industry: Bill Gates is its Henry Ford, except that in Gates' rewrite of history Henry Ford started by inventing the Cadillac and never got to the Model T. In other words, the PC hasn't been democratized yet or turned into a commodity that's affordable to or accessible by all Americans. This is an example of how market forces don't necessarily lead to inclusion and participation by everyone in our economy. I firmly believe that the PC industry will eventually develop an affordable personal computer. On the other hand, it's clear that market forces won't put even that affordable computer on networks in every classroom. Kids don't have the money, other than lunch money. We need to spend public money to guarantee that technology is part of public education in the 21st century.

VIDEO: As 1996 approaches, what is the FCC's agenda?

HUNDT: Our agenda is to promote private competition and guarantee public benefits from the communications revolution. That's the most difficult challenge the FCC has ever faced. We need to remain above partisan debate, commit ourselves to working together to achieve consensus, decide to vote on all matters without delay, and recognize our profound responsibility to the American public—namely, to adhere to the public interest in all of our decisions. I'm confident we're going to be successful, but it's going to be an exhaustive 12 months for everybody at our tiny little agency.

VIDEO: Given the current political climate, is your vision realistic?

HUNDT: All visions are about realities that can come true but can't possibly be guaranteed. There's no such thing as a vision that's limited to the way the world is. That isn't vision—it's called hindsight. ■

AT LEAST YOU AGREE ON THE BEST HOME THEATER RECEIVER

From our value packed new TX-SV424
up to our breakthrough THX model

TX-SV919, ONKYO has
written the perfect
home theater script,
one with award-winning
performances for both
design and technology.

In the first few seconds of the movie
you'll hear the ONKYO difference.
Differences that only oversized
transformers and discrete output stages
can deliver. Differences that allow
ONKYO receivers to supply the power
hungry demands of today's special
effects laden soundtracks. Whether
you're listening to whispers or weapons.

And as the movie develops, you'll find
yourself in a multi-dimensional soundfield
directly inside the on-screen action.
That's because ONKYO utilizes the most
advanced DSP technology, like the latest
24 Bit Microprocessor from Motorola,
capable of taking the director's vision and
making it yours.

Simply put, with an ONKYO home
theater receiver, movies stop being
enjoyable—and become memorable.

So while you may not always agree on
what to watch, with ONKYO there's
simply no argument.



ONKYO

ONKYO USA CORPORATION
200 Williams Drive, Ramsey, NJ 07446
201-825-7950

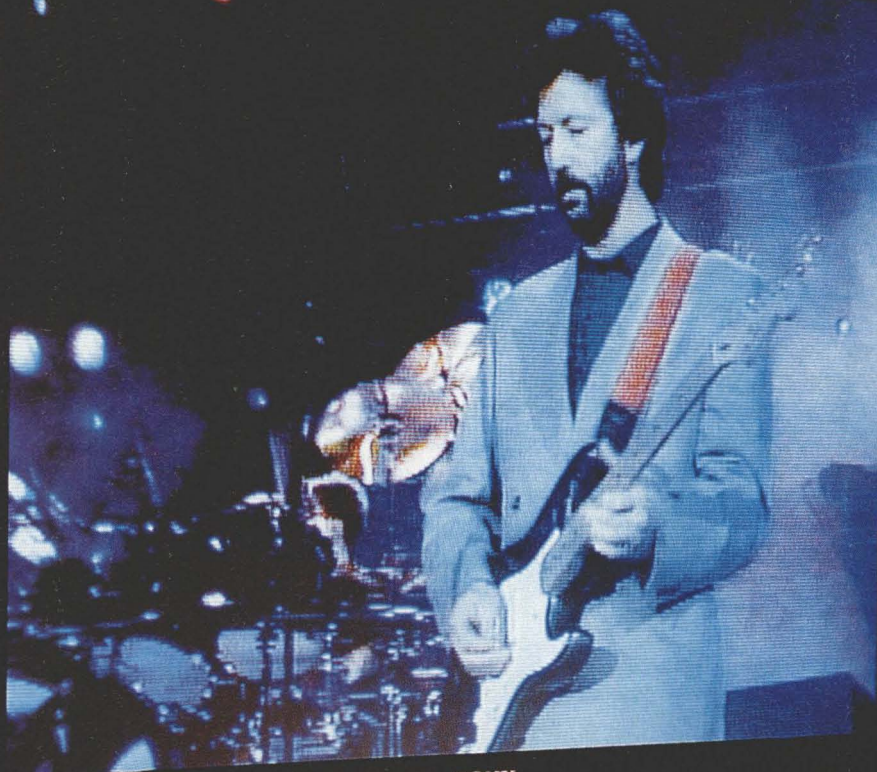
E-Mail ONKYO @ NIS.NET

CIRCLE NO. 72 ON READER SERVICE CARD





VIDEO TEST SPECIAL



SONY

Model: WEGA-10000
Video: PAL/SECAM
Power: 100W
Y&C: Y/C
Y&C: Y/C

THE BIG PICTURE

**Six relatively affordable
rear-projectors
tested and compared**

BY PETER BARRY

**TEST
824**

REAR-PROJECTION TVS ARE SELLING like hotcakes thanks to their big-screen impact, and they're the future of display devices destined for the home. That's because direct-view tubes hit the ceiling at about 40 inches: At that size (and above), tubes are very expensive to build and ship, their single electron gun has a hard time maintaining picture accuracy at the edges of the screen . . . and they explode when you shoot them. No, if you want to make a big, high-quality picture you need big technology, and today that means *three* CRTs. And rear-projectors have 'em. The really exciting part is that rear-projectors are still in their infancy in terms of technical development.

The three CRTs used by rear-projectors deliver the video image as three separate signals—red, green, and blue, the three colors that comprise any color video signal. Front-projectors, which are used to drive today's pricey state-of-the-art systems, employ similar technology but work with a separate screen. Rear-projectors bring it all together in one cabinet.

Two fundamental hurdles have faced the engineers who design rear-projectors. First, they've had to compensate for the proximity of the three CRTs and the integral screen. With front-projectors, the CRTs need to be about 10 feet from the screen in order for the light they produce to be accurately focused; with rear-projectors, the CRTs and screen may be separated by less than 4 feet. The initial fix was a pair of mirrors, which reflected the CRTs' output before it hit the screen; many late-model rear-projectors now employ a single mirror.

The second problem was that rear-projectors had trouble delivering the light output needed to produce a bright high-quality image in a brightly lit room. Today's models combine high-output lenses with the shorter "throw distances" granted by the mirror(s), allowing the CRTs and lenses to be closer to the mirror(s). This combination allows the sets to deliver bigger, brighter images in reasonably sized cabinets—cabinet depths, in fact, are barely larger than those of larger direct-view TVs. Combining all of these elements in a cabinet has been a fairly expensive proposition for years, but the good news today is that rear-projector prices are coming down even as quality continues to improve.

To get a clear picture of what you can expect from the new crop of reasonably priced rear-projectors, we assembled a half-dozen models from the category's major manufacturers. The boom segment: models with screen sizes from 46 to 50 inches and suggested retail prices of \$2,400 to \$3,199. This is really entry-level for a rear-projector. The allure of these sets is the potential they have for dramatic visual impact—the larger the images you see, the more involving the experience.

An added enticement is the fact that these sets

PHOTOS BY TONY CONDOZA



Pioneer SD-P4683. Overleaf: Sony KP-46V25

dwelling in the price range of the better 31-inch and larger direct-view TVs. So even if you aren't yet sold on the rear-projection concept, our test should prove interesting.

The candidates: Hitachi's 50-inch 50UX22B (\$3,100), Magnavox's 46-inch FP4651G (\$2,400), Mitsubishi's 45-inch VS-4542 (\$2,499), Pioneer's 46-inch SD-P4683 (\$2,499), Sony's 46-inch KP-46V25 (\$3,000), and Toshiba's 48-inch TP48D90 (\$3,199). In terms of simple inch-per-dollar value, the Magnavox leads the pack at about \$52 per inch and the Toshiba brings up the rear at about \$66.50 per inch.

When shopping for a rear-projector, you'll find that some, like Pioneer's SD-P4683, are minimalist in terms of audio features, since their engineers put their design dollars into the video end of the equation. Other sets offer incredible feature packages; in these cases, naturally, the manufacturer has to sacrifice some sheer video performance to keep to their budget. These choices can make your decision-making process more difficult . . . or simpler. Our advice is that you carefully weigh the op-

tions and decide what your particular needs are. Whatever they are, we're confident that there's a rear-projector out there for you.

The importance of particular features is a personal call, of course, but picture quality can be analyzed objectively. So we take a scientific approach to evaluating video performance. We measure a set's ability to produce appropriate levels of light output in a linear fashion—in other words, we determine whether it can deliver gradations of light from black all the way to white in a controlled manner. A set that does this well is said to "delineate a proper gray scale."

We also look at the ability of the TV's color decoder to render colors accurately. We observe the image to see how much "dot crawl" there is along the vertical edges of objects (visible, literally, as crawling edges where colors separate); this tells us how good a job the comb filter is doing in its task of reintegrating the separate color and black-and-white signals it receives. And we judge whether the screen, the internal factory-set convergence con-

trols, and the external user-accessible convergence controls can add up to a truly sharp, detailed picture.

No set does all of these things perfectly, and that includes professional broadcast monitors. But these are the standards against which measurements and observations are made. The closer any TV set gets to achieving the ideal, the more involving and exciting the experience will be.

Our test procedure began by arranging the sets at a viewing distance of 12

A viewing distance of 12 feet is appropriate for rear-projectors of this size.

feet, which is appropriate for their screen sizes. Each set was initially viewed individually and then as part of a group. And we started by viewing each set straight out of the box—in other words, just as it had come from the factory. Our reference system included Pioneer's CLD-D702 laserdisc player, which was fed into JVC's JX-S900 switcher; equal lengths of Straight Wire SilverLink video cable ran from the switcher to the composite video input of the TVs.

Next, we optimized each set's image. We didn't make adjustments to picture controls like CONTRAST or SHARPNESS at this stage; rather, we selected among the basic picture modes and, when available, color-temperature settings. Then we watched each set for a good long while to get a feel for it.

Next, we compared all of the sets side by side. Then we used the *A Video Standard* test laserdisc to optimize each set via its picture controls. Finally, we calibrated each set using a Philips color analyzer, which revealed its ultimate performance potential, and watched a number of reference discs, including *Forrest Gump*, *Blade Runner*, *The Abyss*, and the black-and-white *Schindler's List*.

AVS tests included the PLUGE pattern, which let us optimize the BRIGHTNESS and CONTRAST picture controls as well as check the delineation of the gray scale. The Needle Pulse pattern indicated whether the set's power supply can control light output in a linear fashion;

being able to control light output at multiple levels simultaneously is critical, since light levels in most movie scenes range broadly. A TV that has to operate beyond its linear range is, in effect, like a car that's always revving over its redline—ultimate performance suffers, and the set's lifespan may be affected.

While calibrating each set, we paid strict attention to its color-temperature at both high and low light-output levels. As mentioned, a set must be able to track the gray scale from low to high output—at every step along the way from low (dark) to high (bright), in other words, the color temperature should remain near the industry's D6500° standard. The closer to that number at each interval from low to high, the truer the gray scale and the better the color fidelity with all types of movie scenes. When calibrating a particular set, we adjusted the high and low output levels as close to the D6500° standard as the set's internal controls allowed.

Our evaluations revealed some commonalities: All of the entries had 400 lines of horizontal resolution and 480

lines of vertical resolution with a laserdisc source, but, as the accompanying chart shows, a test generator told a different story for the horizontal variety. Each set also utilizes 7-inch glass-and-plastic hybrid CRTs and lens assemblies. Every model offers some type of lock function to block shows you deem objectionable. And all of the sets have some type of

comb filter. Comments on individual models follow, in ascending order of preference based on video performance and overall value.



MITSUBISHI VS-4542

The VS-4542 (\$2,499) has the smallest cabinet in the group and offers a useful tray up top, a nice touch if you need a spot for a VCR or LD player. The single-tuner PIP has two window sizes and swap, freeze, snap-shot, and replay functions. The remote control is an infrared learner that can control VCRs and cable boxes; it requires good eyesight and nimble fingers. The sound system is standard-issue.

You get three color-temperature settings: HIGH, MIDDLE, and LOW. As with the Magnavox, Sony, and Toshiba, the convergence method is a single crosshair, though here it's accessible through the remote. The comb filter is analog.

As with most rear-projectors, you'll need to do some picture tweaking—out of the box, the 4542's image looked extremely bright, blue, and noisy. Gray-scale delineation was good rather than great, as was the color decoder. There was a large amount of dot crawl, which can be attributed to the analog comb filter. The power supply did a solid job of controlling light output, however.

A color-temperature check indicated that HIGH read 12,500° K at high output, 7,500° K low, and 40.4 ftL; MIDDLE was

9,200° K high, off the scale low, and 43.2 ftL; and LOW was 7,650° K high, 16,000° K low, and 44.7 ftL. A lack of range in the internal controls made calibration impossible, but we were able to bring CONTRAST down to the point where we measured a good 13 ftL. The 4542 had the best measured horizontal resolution in the group.

PIONEER SD-P4683

The SD-P4683 (\$2,499) is packed with interesting and useful features. For starters, it has an aspect ratio of 16:10.7. Pioneer calls this the Cinema Wide system, and (obviously) it strays from the 4:3 aspect ratio of most TVs, including all of the others in this group. In practical terms, the P4683's screen is wider than 4:3 screens and a bit taller

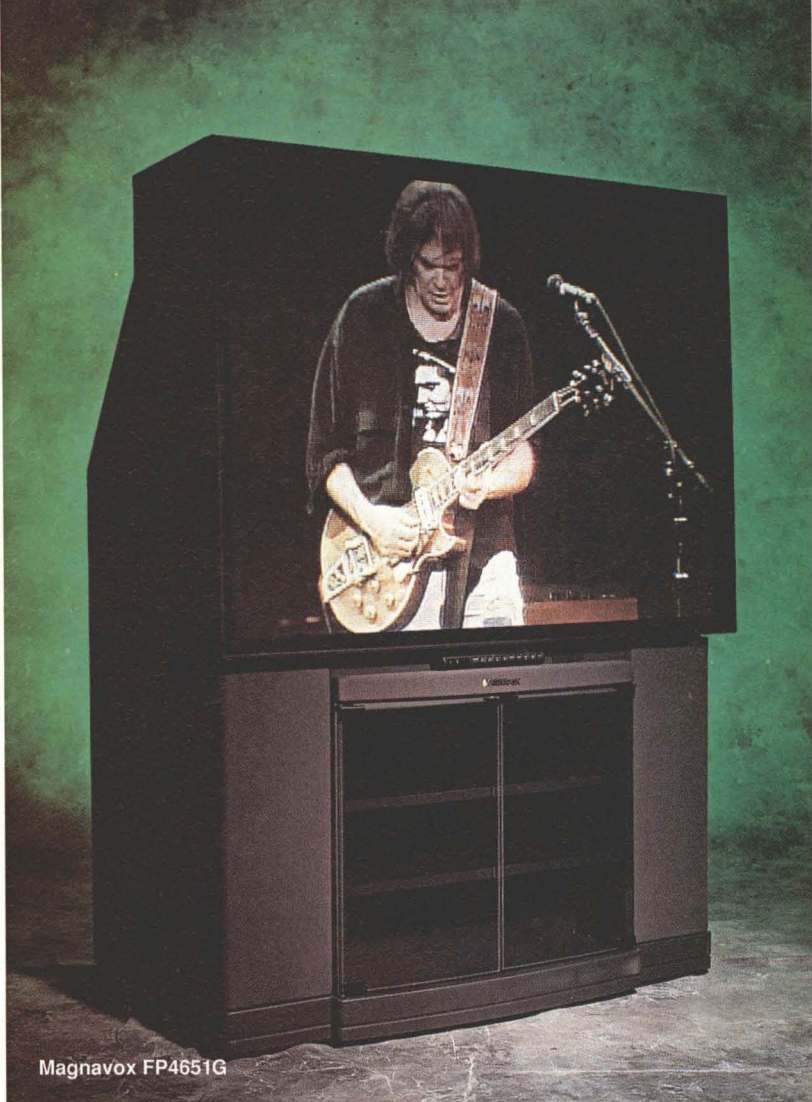
The Pioneer's nine-point convergence system is the best of the manual designs.

than 16:9 screens. What you'll see is subtler black masking bars when you watch widescreen movies and an image that's slightly expanded at the edges when you watch normal 4:3 fare (which includes the vast majority of videotapes and TV programming).

The P4683 has the best manual convergence system in the group. It's called a nine-point system, and you can access it from the remote—it really makes accurate convergence a snap. There's a three-line digital comb filter, single-tuner PIP, and a well designed remote that controls most VCRs and LD players. You'll also find the most A/V inputs in this company, including four S-Video inputs, one of which is on the front panel. And though there are no color-temperature options, you do get the most picture modes (five).

The sound system is strictly minimalist, which is typical of Pioneer's rear-projector line. This is smart thinking in our book: If you're going to go big-screen, you need a component surround-sound system to do its images justice.

Unusually, the P4683 looked good out of the box; the only downer was some unruly video noise. Gray-scale delineation and brightness were very



Magnavox FP4651G

good, and the set has a well controlled power supply. Dot crawl was minimal. And there was very good detail in the high frequencies. The image's edge-to-edge uniformity was also good.

Our color-temperature check of the MOVIE picture mode showed 7,900° K high and 16,000° K low. The set calibrated well: We ended up at 6,710° K high, 6,600° K low, and 14 ftL. Noise remained high, however, and the color decoder was only average. But light-output linearity was the best in the group, and the P4683 rivaled the Toshiba in the excellence of its comb filter.

MAGNAVOX FP4651G

The FP4651G (\$2,400) continues Magnavox's tradition of offering smart features and good all-around performance. Creature comforts include the Remote Locator (push a front-panel button when you've misplaced the remote and it'll begin to beep), Smart Sound (volume levels remain relatively constant when switching from channel to channel and during show-to-com-

mmercial transitions), and Smart Picture (three preset picture modes and one adjustable mode). The set also has shelving below the screen for storing components. The sound system is a fairly standard four-speaker type, though it didn't crumble when subjected to high volume levels.

There's a single-tuner PIP, and the set has dedicated jacks for Magnavox's add-on ghost-canceling black box. Only one antenna input is on hand (the lowest number in the group); front-panel inputs don't include an S-Video jack. Uniquely in this group, the FP4651G has a removable, lightly tinted outer screen, whose mission in life is to make the set look more like a direct-view TV and to protect the "real" screen. When in position, it stands as much as 2 inches from the real screen, so we removed it to keep the playing field level.

Like most rear-projectors, the FP4651G looked so-so out of the box, though it was immediately apparent that it was doing a good job of delineating the gray scale. Smart Picture's

MOVIE mode was the most natural, so that's where we started out. Despite the use of a digital comb filter, dot crawl was evident, but there was good detail in the high video frequencies. The power supply and color decoder are clearly serviceable, if not standouts. Though there are no color-temperature options, MOVIE measured a very good 7,330° K high, a not-so-good 10,500° K low, and 32.6 ftL. Calibration brought the FP-4651G fully in line: 6,300° K high, 6,650° K low, and 13 ftL. Even without calibration, the image looks good, and this set is a very good value.

HITACHI 50UX22B

The 50-inch 50UX22B (\$3,100) offers lots of features, and they're the kind of features that prove the designers spent a lot of time thinking about how such a set is used. The best of the bunch is a performance feature called Magic Focus, a simple name for a sophisticated digital convergence system. It aligns the set at 256 points around the screen at the push of a button; the process is completely automatic and takes a mere 90 seconds. For comparison, know that simple crosshair convergence systems focus on a single point, and nine-point systems (obviously) work with nine points—more points clearly result in better convergence. Hitachi is to be congratulated for implementing this excellent design, and every manufacturer of rear-projectors should adopt it.

You'll also find a robust audio system that includes a Dolby Pro Logic decoder, a pair of wireless powered speakers for surround duty, and a test tone for balancing speaker levels. The 50UX22B's cabinet also houses a center-channel speaker, another excellent touch every rear-projector manufacturer should emulate.

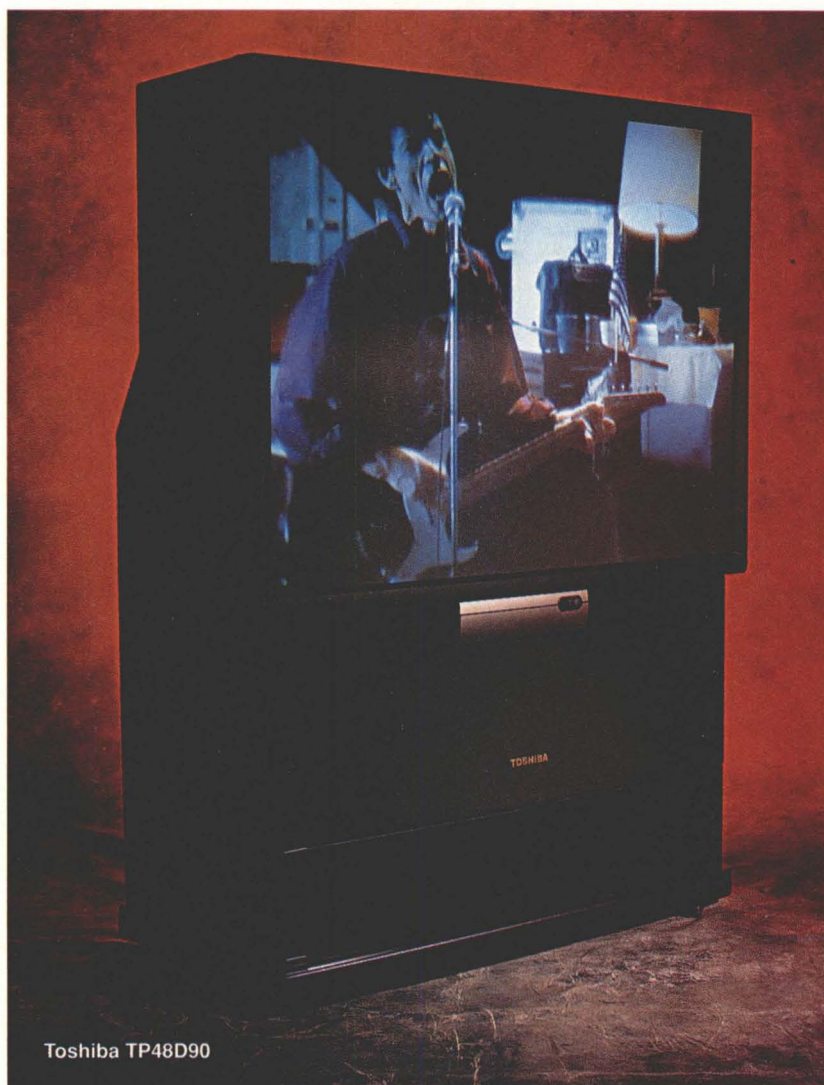
You get two color-temperature options. And the remote control is easy to use: Important buttons can be illuminated, and it's able to control VCRs and cable boxes.

Be prepared to tweak away with the 50UX22B (or have someone ready to do it for you), because its picture is something of a horror out of the box: Gray-scale delineation was poor, video noise was rampant, and CONTRAST was extremely overdriven. Dot crawl was about average for the group, and the color decoder was doing a fair job. On the other hand, upper-frequency detail, horizontal resolution, and edge-to-edge

uniformity were good for this group.

The color-temperature options came surprisingly close to the industry-standard bull's eye: COOL checked in at 7,850° K high and 29.7 ftL, though low output was off the scale. And WARM measured a very respectable 6,360° K high with 31.5 ftL, though again low output was off the scale. Both low-output readings erred on the blue side, explaining much of the video noise we

inches. There's a dual-tuner four-position PIP. Two external speakers are supplied to complement the set's Dolby Surround (not Pro Logic) decoder and 48-watt-total amplifier package, so you can enjoy a satisfying home-theater experience even if you don't intend to add a component surround-sound system. The universal learning remote is well designed and can be illuminated for in-the-dark use, and there's a second re-



Toshiba TP48D90

saw. Calibration of the WARM mode improved things greatly, resulting in readings of 6,400° K high, 12.9 ftL, and 6,800° K low. This is a very nice entry.

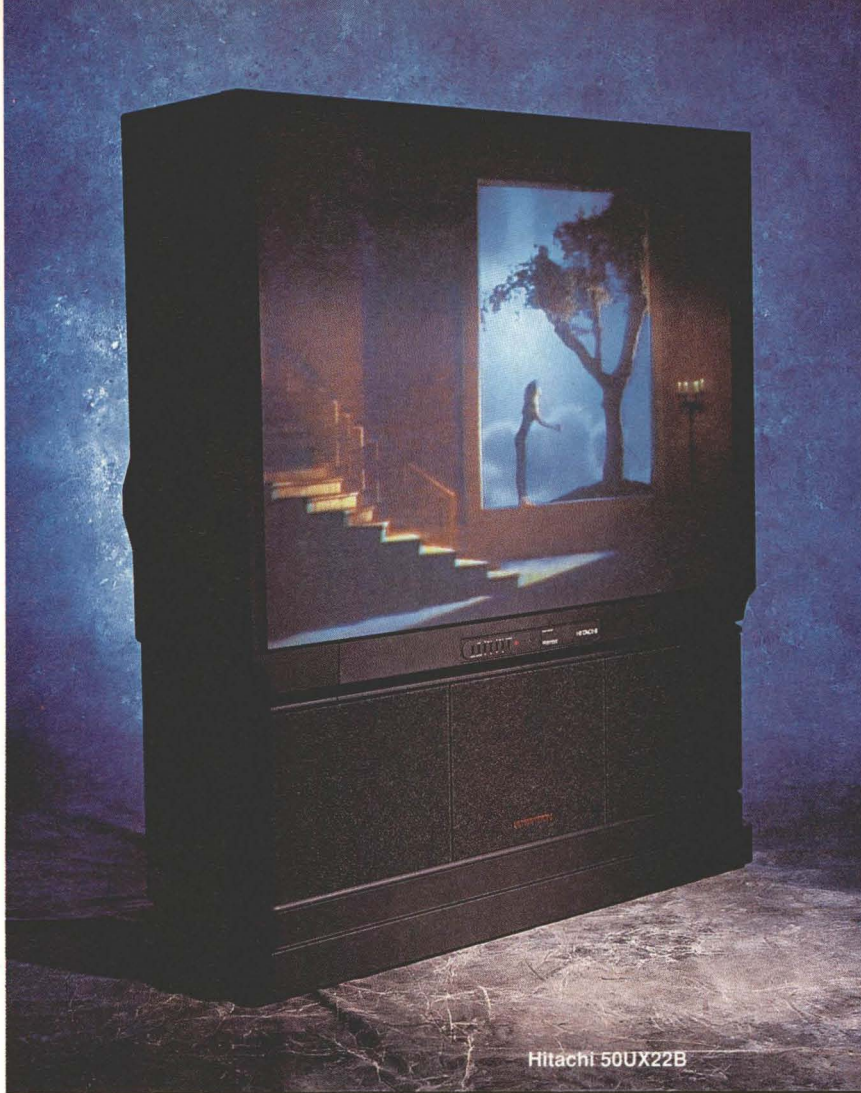
TOSHIBA TP48D90

The TP48D90 (\$3,199) doesn't offer as many features as some of the sets in this group, but the ones it has are key: It's tied with the Hitachi for offering the most antenna inputs (three). Its cabinet is the shallowest, at a mere 19.7

inches. There's a dual-tuner four-position PIP. Two external speakers are supplied to complement the set's Dolby Surround (not Pro Logic) decoder and 48-watt-total amplifier package, so you can enjoy a satisfying home-theater experience even if you don't intend to add a component surround-sound system. The universal learning remote is well designed and can be illuminated for in-the-dark use, and there's a second re-

note that provides quick access to the basic TV controls. The set doesn't have color-temperature choices, but does offer two preset picture modes (NORMAL and THEATER) and one user-adjustable mode (MEMORY). And a 3-D comb filter is on hand to clean up the image.

Careful adjustment of the picture controls is important, because out-of-the-box performance was very bright, noisy, and inaccurate in terms of color.



Hitachi 50UX22B

The gray scale was decently delineated, however, and the color decoder was doing a good job. Like the Magnavox, Mitsubishi, and Sony, the TP48D90 uses a crosshair convergence control, and it's of limited use. The 3-D comb filter was among the best in this group, however, and there was only a bit of dot crawl.

After an AVS tuneup, the TP48D90 had the best gray scale in the group and showed plenty of detail at high frequencies. There are inevitable tradeoffs with CONTRAST, though: If you set it properly in terms of linearity, the picture will be too dark; this is a side effect of an inadequate power supply. In the end, I tweaked it back up to just below the one-half mark, which produced a good 12 ftL of light output, though this level is beyond the set's linear range. Before-calibration color temperature was 11,500° K high and 8,400° K low; after calibration, we measured an excellent 6,590° K high and 6,330° K low, and the set still showed a very linear gray scale. At this point, the TP48D90 produced excellent images for the price. Bravo.

SONY KP-46V25

The KP-46V25 (\$3,000) is loaded with features, including one very important one—the NTSC STD (standard) color-temperature option, which, as you'll

REAR-PROJECTORS

STATS

Make & Model Phone	Price ¹	Screen Size	Aspect Ratio	Size ² ; Weight	A/V Inputs ³	A/V Outputs ⁴	Antenna Inputs	Amp Power ⁵	Surround Sound ⁶	Speakers ⁷	Comb Filter
Sony KP-46V25 800.222.7669	\$3,000	46 inches	4:3	52.6 x 42 x 27.5; 193 lbs.	3 (1); 1 (0)	2; 1	2	10 x 2	Synthesized	L R	Digital
Toshiba TP48D90 201.628.8000	\$3,199	48 inches	4:3	55.5 x 41.5 x 19.7; 254 lbs.	3 (2); 1 (1)	1; 1	3	14 x 2; 10 x 2	Synthesized, Dolby Surround	L R S	Digital
Hitachi 50UX22B 404.279.5600	\$3,100	50 inches	4:3	51 x 43.3 x 21.5; 250 lbs.	3 (2); 1 (1)	1; 2	3	30 x 3; 10 x 2	Dolby Pro Logic	L C R S	Digital
Magnavox FP4651G 800.531.0039	\$2,400	46 inches	4:3	54.5 x 39.5 x 27; 236 lbs.	3 (1); 1 (0)	1; 1	1	20 x 4	Synthesized	L R	Digital
Pioneer SD-P4683 800.421.1404	\$2,499	46 inches	16:10.7	48.5 x 44.7 x 24; 194 lbs.	4 (4); 1 (1)	1; 1	2	10 x 2	Synthesized	L R	Digital
Mitsubishi VS-4542 800.332.2119	\$2,499	45 inches	4:3	48.3 x 39.8 x 22.4; 207 lbs.	3 (2); 1 (0)	1; 0	2	10 x 2	Synthesized	L R	Analog

KEY: ● Yes ○ No L = Left C = Center R = Right S = Surround U = Universal I = Illuminated P = Programmable

NOTES: 1. Suggested retail. 2. Height x width x depth, in inches. 3. Total (S-Video); front panel (S-Video). 4. Total; variable audio. 5. Rated; watts x channels. 6. Presence of user-accessible color-temperature modes. 7. In lines as judged with a test generator. 8. Video, in dB; chroma AM, in dB; chroma PM, in dB. 9. High output of available modes, before calibration in degrees Kelvin; high output after calibration, in degrees Kelvin. 10. In footlamberts, before calibration; after calibration. 11. Subjective ratings. 12. Could not be calibrated.

see, is a winner. It ranks right up there with the Hitachi's digital convergence system as the best performance feature in the house.

Sony includes two other color-temperature settings, Program Palette (three preset, but fully adjustable, picture modes), dual-tuner PIP (with four window positions, two window sizes, freeze frame, swap, and PIP audio), shelving for components, and a sleep timer. The supplied remote operates VCRs, LD players, and cable boxes; it seemed unwieldy at first because it's designed to stand upright, but its layout is functional and we quickly got used to it. The sound system is standard.

Like the Pioneer, the 46V25 looked pretty darn good out of the box. The NTSC STD color-temperature mode looked best, so that's what we used. There was some noticeable video noise in dark scenes and the gray scale wasn't fully delineated, but the power supply was doing a good job of controlling light output. We saw some dot crawl, but the set showed better-than-average upper-frequency detail and had the best geometry and convergence of the group; horizontal resolution was also very good for this group. The good convergence is key, since the crosshair system is rudimentary.

The color analyzer showed that the NTSC STD mode measured an extremely

good 6,340° K high, a not-so-good 14,000° K low, and 39.3 ftL; the low output really needs work if you want completely accurate colors and want to be able to see detail in darkly lit scenes. The color decoder was doing a good job, though, and adjusting CONTRAST brought light output down to a good 14

The Sony looked pretty darn good out of the box, and its power supply was doing a good job.

ftL. We calibrated NTSC STD to read 6,450° K high and 6,500° K low. This was a major improvement, and the 46V25 put up some very impressive images.

AS WE SAID AT THE OUTSET, THERE'S A set here for anyone who's looking to get in the big-screen door with a minimum allocation of funds. The winners in terms of sheer video performance are clear, though good performance plus a compelling package of features are sure to make many shoppers lean toward other models. In any case, the information is here and, as always, only you

can make the decision that best suits your needs.

That said, our favorite in terms of cost-is-no-object video performance is Sony's KP-46V25. It offers the best performance of the group before calibration, and though it doesn't have the excellent parts quality of the Toshiba, it's a bit less expensive. Toshiba's TP-48D90 is a close second, with very good overall performance.

Hitachi's 50UX22B made a very good showing, and has the best convergence system as well as some very useful features. Magnavox's FP4651G was a good all-around performer, and though it's light on performance features, it offers many helpful conveniences; it's also the best inch-per-dollar value. Pioneer's SD-P4683 offers lots of inputs, nine-point convergence, good after-calibration performance, and a 16:10.7 aspect ratio. And Mitsubishi's VS-4542 consumes the least space of the sets in this group and offers the highest horizontal resolution. Have it your way. ■

For more information on any rear-projection TV reviewed in this story, please circle the appropriate number on this issue's reader service card: Hitachi 50UX22B (112), Magnavox FP4651G (113), Mitsubishi VS-4542 (114), Pioneer SD-P4683 (115), Sony KP-46V25 (116), Toshiba TP48D90 (117).

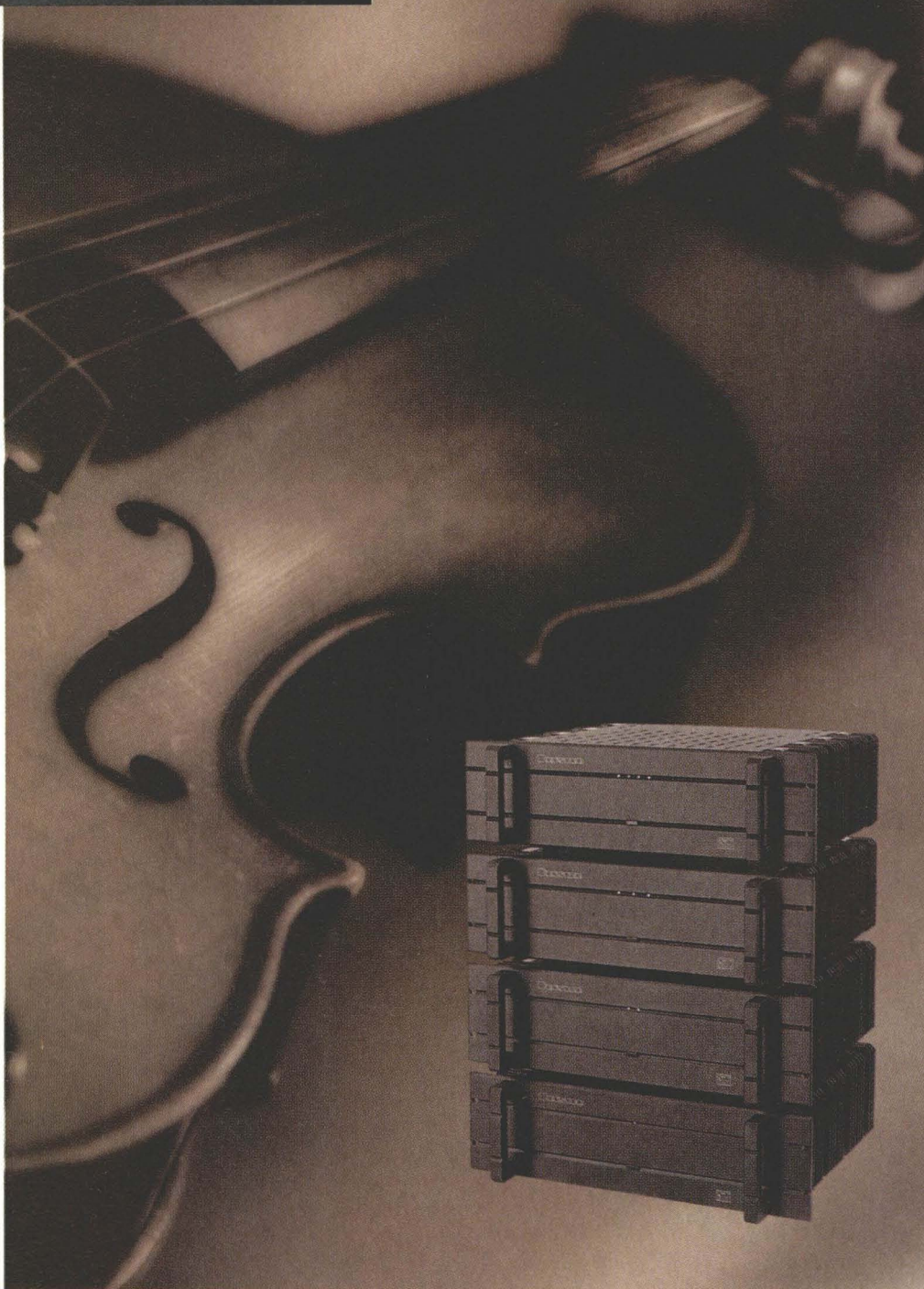
STATS						LAB MEASUREMENTS & RATINGS Measurements performed by Kevin Miller and Berger-Braithwaite Labs						
Conver- gence	Tuners	PIP	Picture Modes	Color Temps ⁶	Remote	Horizontal Resolution ⁷	Picture S/N ⁸	Color Temperature ⁹	Light Output ¹⁰	Picture Detail ¹¹	Color Accuracy ¹¹	
Crosshair	2	Advanced	3	●	U P	500	54.9; 64.7; 64.4	9,600; 7,900; 6,340; 6,450	39; 14	A	A	
Crosshair	2	Advanced	2	○	U I P	408	54.6; 63.8; 63.9	11,500; 6,590	43; 12	A	A	
Digital	1	Advanced	1	●	U I P	508	54.5; 64.1; 64.1	7,850; 6,360; 6,400	31; 13	A	B	
Crosshair	1	Advanced	4	○	U P	485	52.7; 63.1; 63.3;	7,330; 6,300	32; 13	A-	B	
9-point	1	Basic	5	○	U P	445	54.3; 63.9; 64.5	7,900; 6,710	38; 14	A	B-	
Crosshair	1	Advanced	1	●	P	533	51.9; 62.1; 62.4	12,500; 9,200; 7,650 ¹²	43; 13	B-	B-	

THE BRYSTON ST SERIES AMPLIFIERS

Listen Past the Equipment
and Experience the Music
as Intended

Once in a while an idea
comes along which represents
a significant step forward in
advancing the current state-
of-the-art. We feel our new
ST Series amplifiers exemplify
this unique distinction.

A new approach to low-noise,
low distortion signal-path
has produced a line of
amplifiers which is actually
quieter and more transparent
than any source material
currently available.

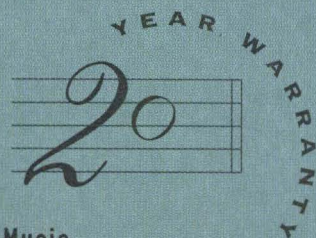


Bryston ST amplifiers, from the top: 8B ST 4 channel 120 wpc, 5B ST 3 channel 120 wpc, 4B ST 250 wpc stereo, 7B ST 500 watts mono. Not shown is the 3B ST 120 wpc stereo.

The Bryston ST innovation: our ultra-linear "input buffer-with-gain" substantially lowers the distortion and inherent noise floor — hearing is believing.

Completely separate power supplies for each channel eliminate any crosstalk to ensure firm focus and completely accurate imaging of musical instruments.

Switchable gold plated RCA unbalanced and XLR-1/4 inch balanced inputs, with equal gain, allows flexibility for multi-channel system configurations.

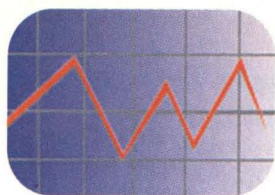


Music
for a
Generation

Bryston Ltd, P.O. Box 2170, 677 Neal Drive, Peterborough, Ontario,
Canada K9J 7Y4 Tel: (705) 742-5325 Fax: (705) 742-0882

CIRCLE NO. 48 ON READER SERVICE CARD

BRYSTON



VIDEO TEST



Wild Receiver

**Pioneer
recreates the
category**

**TEST
825**

NEARLY 20 YEARS AGO, PIONEER MORE OR LESS CREATED THE “super-receiver” category with their massive, 100-watt-per-channel SX-1250. In the immortal words of hi-fi veteran Victor Campos, this hulking, rack-handled silver-faced behemoth had “everything but a mane and a tail.” We’ve come a long way since then, of course. Five-channel power is now the norm for most receivers, black is the near-universal livery, and the rack handles are long gone. Yet Pioneer’s VSX-99, the new flagship of

the company’s premium Elite line, vividly recalls the SX-1250: It ups the ante for onboard power, and it’s the first A/V receiver to incorporate a Dolby Surround AC-3 decoder. Clearly, it embodies the shape of things to come.

In terms of size, the VSX-99 (\$2,100) is something of a surprise—it’s a relatively compact 18 x 7 x 17 inches (h/w/d), which is no larger than many midline A/V designs. The surprise hits home when you consider its impressive surround-mode power: Each of the five channels is rated to deliver 100 watts (at 1,000 Hz, into 8 ohms with 0.8 percent THD). Yes, the 99 features the holy grail of high-end home theater: equal power all around.

Big power usually requires a big

chassis, but Pioneer employs fan cooling to keep the 99’s bulk down to manageable proportions. The package includes a square vent on its rear panel, an intake grille on its left side, and an internal fan that runs continuously; under high-drive or high-stress operation, fan speed rises and falls as necessary to keep the receiver from poaching in its own juices.

In addition to its AC-3 decoder [see “Surrounded,” September 1995, for an introduction to AC-3], the 99 offers many cool features. The high points include on-screen operation via a comprehensive graphic interface and an advanced remote control; two infrared senders—a large “blaster” and a stick-on mini-repeater—are generously sup-

plied to distribute remote commands to other components. Digital signal processing is on hand for Dolby Pro Logic, the receiver’s five additional surround modes, and, of course, AC-3. There’s also a multisource multiroom function, which includes line-level outputs for both video and audio signals as well as independent A/V source-selection and volume control. (An additional infrared repeater and remote are required to make full use of this option.)

Aesthetically, the VSX-99 is a stunner, with the Elite line’s high-gloss finish and wood sidepanels. The layout is relatively simple, thanks to the on-screen interface. There are two small buttons for source and mode selection, a large volume knob, and smaller knobs for tone and balance. A “multi-jog” wheel lets you navigate the on-screen menus or tune the radio from the front panel. A relatively understated scrolling fluorescent readout delivers data, though the on-screen displays will usually be the primary info source.

While the 99 excites the eye, its panel graphics do not: Even on a sunny day, I literally needed a flashlight to read many of the tiny gold-on-black labels. Stop the insanity!

Around back, the 99 bristles with connectors. There are full A/V input/output sets for two components (VCR 1 and VCR 2), with input-only jacks for LD and TV-SAT; a fourth A/V input, VIDEO, is located on the front panel. Pure-audio inputs include phono, two full tape loops, and CD. S-Video jacks are provided for VCR 1 in/out, LD, TV-SAT, and monitor-output. Two AC-3 inputs are on hand—an RCA jack marked LD and a demodulated input marked TV/SAT, for use with future AC-3 sources such as an HDTV set or a small-dish receiver.

The 99's line-level preamp outputs are limited to subwoofer, center channel, and multiroom, so you can't upgrade the power going to your main or surround speakers; considering the power ratings, that shouldn't be a problem unless your living room is the size of a football field. Left/right speaker connections are made via heavy-duty five-way posts that accept standard dual-banana plugs, but the surround and center speakers get only relatively light-gauge clip-terminals that accept nothing but bare wire.

Setup required no special moves. I used the big Pioneer with an all-B&W speaker suite—803-II mains, an HTM center, SCM-8 dipole surrounds, and an 800ASW powered subwoofer—along with Pioneer's CLD-S304 LD player. I began as always by calibrating surround-sound channel balance at the lis-

tening position, using the receiver's internal noise generator and an SPL meter. The 99 balanced up nicely—the SOUND EDIT "page" of its interface gives you "mouse"-driven adjusters for center, rear, and sub levels as well as main and rear balance. Once set, the 99 locked onto my relative channel levels over the full master-volume range.

The SPEAKER MODE page, which is accessed from SOUND EDIT, lets you configure the 99 for your system: Separate icons for front, center, rear, and sub speakers can be toggled between LARGE, SMALL, and NONE, and your selection (which should match your speakers' capabilities), automatically adjusts the receiver's onboard crossover—set front, center, and rear to SMALL, for example, and all five speakers are crossed over to the sub output. Crossover frequencies are managed by another icon group, with 100-, 150-, and 200-Hz options; slopes are given as 12 dB per octave.

The internal speaker/line-level crossover is fully two-way in all of the surround modes, meaning that it filters out the bass that would otherwise be sent to the front, center, and surround speakers (depending on your LARGE/SMALL settings) while also filtering high frequencies out of the subwoofer input. One fairly significant catch: In straight stereo, the 99 reverts to full-range two-channel output regardless of

BY THE NUMBERS

Measurements by Start Labs

DPL-mode power (maximum, at 1,000 Hz, 1% THD plus noise, one channel driven): main, 156 watts into 8 ohms, 249 into 4 ohms; center, 150 into 8 ohms, 220 into 4 ohms; surround, 150 into 8 ohms, 196 into 4 ohms

DPL-mode dynamic power: main, 156 watts into 8 ohms, 252 into 4 ohms; center, 153 into 8 ohms, 224 into 4 ohms; surround, 152 into 8 ohms, 200 into 4 ohms

DPL-mode channel separation (at 1,000 Hz, 1-volt input): FR/FL, 62 dB; FL/FR, 65 dB; C/FL, 57 dB; C/FR, 59 dB; R/FL, 59 dB; R/FR, 58 dB; FL/C, 53 dB; FR/C, 53 dB; R/C, 34 dB; FL/R, 44 dB; FR/R, 44 dB; C/R, 41 dB

DPL-mode THD plus noise (at rated power into 8 ohms): main, 0.01%; center, 0.2%; surround, 0.2%

DPL-mode S/N (A-weighted, referenced to 1 watt, 8 ohms): main, 77 dB; center, 71 dB; surround, 71 dB

DPL-mode frequency response (at 1 watt): main, 20–20,000 Hz +0, -1.4 dB; center, 20–20,000 Hz +0, -3 dB; surround, 20–7,000 Hz +0, -3 dB; sub, crossover at 100 Hz, -1 dB at 20 Hz, -3 dB at 110 Hz

THEATER BASS (maximum setting): +10 dB at 80 Hz; 6-dB/octave rolloff high and low

Stereo power (maximum, at 1,000 Hz, 1% THD plus noise, both channels driven): left, 138 watts into 8 ohms, 202 into 4 ohms; right, 141 into 8 ohms, 211 into 4 ohms

Stereo frequency response (at 1 watt): 20–20,000 Hz +0, -4.1

Video insertion loss: 0.02 dB

Picture S/N: unweighted video, 62.6 dB; weighted video, 64.3 dB; chroma AM, 72.8 dB; chroma PM, 62.6 dB

your SPEAKER MODE settings, so if you want to use a powered sub with your mains for music-only stereo listening and don't want the mains' output to overlap with the sub's output, you'll have to loop the receiver's main speaker outputs through the sub's speaker-level crossover (assuming it's so equipped). For this evaluation, I set SPEAKER MODE to SMALL for surround use and selected 100-Hz cutoffs.

Speaking of two-channel use, the 99 was very impressive as a stereo amplifier. It's rated to deliver 130 watts per channel in this mode, and the sound was plenty powerful, well defined, and very quiet, with stirring deep-bass impact and extension. Midrange definition and soundstaging may be a cut below what you get with a well designed 100-watt-class separate power amp, but the difference is extremely subtle.

The 99 seeks to close the gap with its Pure Line function, which is accessed by a front-panel switch. It routes audio signals directly from the input to the power-amp stage, bypassing tone, DSP, and surround circuits and extra switching points as well as shutting off the

THE SHORT FORM

PIONEER ELITE VSX-99

Component type: A/V receiver

Price: \$2,100

Target: Serious home-theater enthusiasts

Minimum requirements*: 27-inch TV set, Hi-Fi VCR and/or laserdisc player with AC-3 output, main, center, and surround speakers

KEY FEATURES

- Dolby Surround AC-3 decoder ■ Dolby Pro Logic decoder ■ Five additional digital surround modes ■ Rated to deliver 100 watts x 5 or 130 x 2 into 8 ohms ■ Two AC-3 inputs ■ Two sets of video input/output jacks ■ Four A/V inputs, including one on the front panel ■ Four S-Video inputs ■ Two sets of audio input/output jacks ■ Four audio-only inputs ■ Adjustable two-way crossover for each channel ■ Multiroom, multisource capability ■ THEATER BASS mode ■ Advanced remote with jog-shuttle controls

SUMMARY

- Excellent Dolby Surround AC-3 and Dolby Pro Logic performance ■ Plenty of power for almost any home-theater listening scenario ■ The five other surround modes were a mixed bag ■ The on-screen graphic interface is deep yet intuitive ■ Above-average FM performance ■ A uniquely satisfying, no-holds-barred A/V receiver

Circle 118 on reader service card

**To maximize its potential*

"...this SRS processor is one of life's experiences that must be heard to be believed."

Richard Maddox, Home Theater April 95



Music to Your Ears

"....Talking about it seems to exaggerate its capabilities. Yet there is no denying that no matter how simple the SRS process is, it works remarkably well on any audio source, mono or stereo, and on any system from the cheapest boombox to a stereo TV set to high-end Dolby Pro Logic surround systems. And it does it without having to be pre-encoded on the audio material." Richard Maddox, *Home Theater*, April 1995.

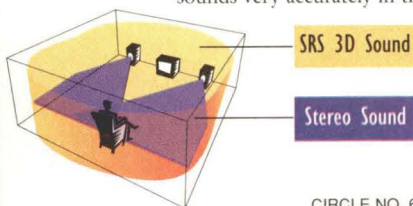
We're flattered by Richard Maddox's comments and every day we hear testimonials from users about how they are amazed by this technology. **SRS** (●) technology has won numerous accolades and has been granted several patents from various countries. Now through NuReality, the power of SRS 3D sound technology can be conveniently and inexpensively brought into your home with the Vivid 3D Theater.

How it Works

You only have two ears, yet you hear in three dimensions. Patented SRS technology is based on a natural psychoacoustic phenomenon, known as Head Related Transfer Functions or HRTFs, that have been largely ignored by modern sound reproduction technologies. HRTFs allow your brain to localize sound because the spectral characteristics, or frequency response, of the sound varies. These "spatial cues" supplied primarily by the outer ear, or pinna, are

transferred to the brain—enabling you to position sounds very accurately in three-

Stereo processing creates flat, two-dimensional sound, whereas SRS processing fills an entire room with lifelike, three-dimensional sound.



dimensional space. SRS technology essentially mimics these diffractive effects of the pinna by extracting information from a recording that originally came from the sides and rear. This ambient information gives you a sense of acoustic space. SRS then uses HRTF-based corrections to cause the ear to perceive these sounds in their original spatial relationships. The result is that the sense of realism you perceive from reproduced sound is dramatically enhanced.

Enhance your System

The Vivid 3D Theater easily connects to your existing system with standard audio cables, which are included. Within minutes you'll be immersed in dynamic 3D surround sound. Like Richard said, SRS technology works remarkably well on any audio source, mono or stereo, as well as surround sound technologies such as THX® and Dolby Pro Logic®.

The Holy Grail of Audio

The audio holy grail is to make the speakers sound invisible and to eliminate the sweet spot. We feel we've achieved this goal with SRS technology and the Vivid 3D Theater. Call today and discover what NuReality products can do for you. Experience SRS Technology for yourself with our free* Demo CD.



NUREALITY®

1-800-501-8086

714-442-1080

<http://www.nureality.com>

CIRCLE NO. 63 ON READER SERVICE CARD



*This specially recorded CD recreates the experience of 3D sound from any CD player and is available for a \$5.95 shipping and handling charge which is fully credited toward the purchase of a Vivid 3D system. This offer applies only to Vivid 3D products purchased directly from NuReality. Freight charges, duty or VAT are not included for international orders. All rights reserved. NuReality and the NuReality logo are registered trademarks of NuReality. SRS and the SRS logo are registered trademarks of SRS Labs. All product names are trademarks or registered trademarks of their respective holders. © 1995 NuReality, 2907 Daimler St. Santa Ana, CA 92705 714-442-1080

display. I didn't hear any concrete difference when switching Pure Line in and out with a reference CD spinning, but the theory certainly is sound.

Pro Logic performance was very good. Channel-leakage was low all around, particularly from the center to either main; center-to-rear leakage was a bit higher, but it was still quite good, and both cases were notably stable and free of sibilant effects. The Pro Logic presentation was smooth and highly listenable with just about all Dolby-encoded movies, particularly at high volumes. (Subsequent bench-testing revealed that the 99 featured a very slight top-octave DPL rolloff of about 1.25 dB all around.) Surround steering was very good: Lateral and front-to-back pans progressed smoothly, with only an occasional hint of "pulling" to the center or sides.

The low end was similarly impressive: The 99's onboard crossover integrated nicely with the B&W sub (I left its own crossover running wide open), though, as usual, considerable time and effort were required to get the levels matched.

The 99 also kicked out real surround-sound power. On big-action sequences, it played the full system far louder than I would ever want to in real life with no hint of strain. It was also able to drive B&W's SCM-8 surrounds to excessive levels, and did so cleanly—the first A/V receiver I've encountered with this kind of surround-channel guts. On the Copland "Fanfare" snippet from Delos' *Surround Spectacular* CD (a fine set created by David Ranada, technical editor of our sibling, *Stereo Review*), the 99 easily delivered the 105-dB-SPL peaks you'd hear in a good concert hall with no sign of surround-channel distress.

Dynamic range was also good: The 99 was a shade noisier than the very best receivers and separate processors I've tried (particularly in the center channel), but it was more than adequate in this regard. With master-volume settings at concert-hall levels, I had to pause a CD (with Pro Logic engaged) before I could hear any hiss; the 99's extra surround modes raised noise levels very slightly. Speaking of noise, the 99's auto-triggering fan adds some as well . . . though you'll probably never hear it because the receiver will only start up the fan when you're cranking the dickens out of it.

The 99 really lit up the room with

AC-3-encoded movies. AC-3 performance was quieter and more spacious, featured more powerful yet better-defined bass, and delivered noticeably clearer, more easily intelligible dialogue than the receiver's DPL performance. The AC-3 difference in terms of openness, depth, and detail continues to impress me. And the 99's AC-3 decoder provided all of the whiz-bang discrete-channel surround effects, such as the psychedelic through-the-stargate segments from the film of that name, the new format is capable of. Just as important, the 99 has enough power to fully exploit AC-3's abilities. Note that the SOUND EDIT page includes AC-3's center-delay parameter for time-aligning the center channel, though it lacks the dynamic-range adjustment I encountered on Yamaha's DDP-1 add-on AC-3 decoder ["VIDEO Test," December 1995].

The five other surround modes proved a mixed bag. EFFECT LEVEL is adjustable to one of eight intensities for each (from the SOUND EDIT page), but that's the only parameter you get to modify—except for rear delay and rear/center speaker levels. But these three parameters are remembered globally, so you'd have to reset them each time you switch from one surround mode to another, which is a drag. Why don't receiver manufacturers offer an individual channel-balance memory for each surround mode?

Most of the modes sounded best with EFFECT LEVEL set to its minimum. The JAZZ and DANCE modes both performed some fairly bizarre steering tricks—JAZZ, for example, seemed to reverse locations of the surround and main left/right channels, while adding a delayed signal to the latter. Still, both modes were interesting on occasion. THEATER turned out to be the most useful; it was quite listenable with some acoustic music.

Interestingly, the 99 lets you engage both Pro Logic and one other surround mode simultaneously, yielding all sorts of interesting—and occasionally useful—effects. On its own, for example, the HALL mode was far too boingy for most music, but combined with DPL (and with rear-speaker levels cut about 4 dB from normal), it did a reasonably nice job with many full-orchestra stereo recordings.

Over on the FM band, the 99's tuner proved a competent design. Strong-signal sound quality was very good; a bit

quieter than an average receiver, and audibly cleaner and more musically dynamic and satisfying. Weak-signal reception was perhaps just a touch above average for mid- to up-market receivers. AM performance was below average, however. The 99 design gives you several tuning options: 30 presets, directly accessible by an on-screen list that includes tuning frequencies, can be stepped through, and up/down seek, step, and preset-step are on tap from the remote.

The multiroom function was very good, with fine video quality and clean, good-sounding audio. Speaking of video quality, the 99's pass-through with laserdisc images was indistinguishable from the direct-connected variety.

My first impression of the on-screen interface was decidedly mixed, but I quickly became a convert as I became more familiar with it. It's not perfect, but it shows where A/V receivers and other home-theater controllers must go. It works like this: The lozenge-shaped remote proffers a round key-group. The outer ring of keys calls up the on-screen display and provides master-volume adjustment. The inner ring supplies on-screen cursor movement (up/down and left/right), while pushing the center key serves as the "enter" command.

When the 99 is set for on-screen operation, the perimeter of its front-panel jog-ring glows amber to confirm and a display appears on the video monitor. Displays vary depending on the source you've selected. The LD page, for example, shows basic transport commands along the bottom edge, with a "hand" pointer you move via the cursor keys to select commands; selecting the double-arrow "more" icon calls up an upper page with all of the various programming and display options. Every screen also has PRO LOGIC and DSP icons for selecting surround modes and a SOUND EDIT icon, which delivers a page containing speaker-level and balance adjustments.

It's a deep yet intuitive system. But it's too cumbersome by itself for everyday use. Just selecting a DSP mode, for example, could require as many as seven or eight keystrokes (calling up the display, "mousing" over to the DSP icon, and cycling through to the desired mode). This isn't a problem, however, since you can simply switch the interface off and use the universal remote

for more conventional operation. For VCR, LD, CD, and audio-tape functions, the remote's round key-set operates play, pause, skip, and the like; in radio mode, the same set of buttons manages seek, scan, and preset tuning both up and down.

Dedicated macro buttons for VCR 1, VCR 2, LD, CD, TAPE, and TUNER are located below the cursor keys. These automatically select the corresponding input on the 99, power up the source component, and put it into the PLAY mode (they can also be programmed to do less, or more, such as switch on the TV and access its input-select button). The system is preset for Pioneer components, but a menu-driven setup routine lets you prime the system to work with gear from other major brands. You can also teach your components' remote codes to the 99 via a conventional routine; it had no trouble learning the codes used by my Proton TV, a trick not all systems can manage. Dedicated keys for controlling a TV set are located at the bottom of the remote and are always active.

The "master-blast" infrared re-

peater supplied with the 99 worked like a champ: It clips neatly onto the top of the receiver and floods the room with remote codes in response to remote commands. All of my components responded just fine, including those directly below the receiver and behind a glass door. The supplied stick-on mini-repeater is on hand in case one of the components in your system is completely hidden away.

I do have a couple of gripes about the interface. The displays disappear automatically 10 seconds after the last command has been entered. That's just about right, timewise, but the cursor defaults to the bottom-right corner each time. So if you're performing an adjusting-listening-adjusting drill, for example, you have to mouse back into position each time. A memory that kept the cursor on the last-used icon, or the ability to select an always-on display mode, would help. And there's no dedicated source-select key for TV, so to choose ordinary television viewing with full-system sound you have to cycle the FUNC key through as many as eight positions; you could connect your

TV's A/V outs to VCR 2, as I did, but a dedicated position would make more sense.

Overall, however, I found the interface to be the most powerful yet usable remote-control system I've seen. It gives you deep full-system command, control, and setup adjustment (there's a lot more I haven't touched on), without ever having to hunt around on the remote or revert to the manual. Once you've learned its ins and outs—this takes an hour or two, tops—it truly works as a heads-up remote, and the VSX-99 (and your system) is your oyster. Pretty cool.

AND THAT'S REALLY JUST THE FROSTING. The cake is composed of stellar AC-3 surround, very fine Pro Logic performance, a better-than-decent FM section, and power, power, power . . . plus multiroom A/V ability . . . and a handful of useful features—like Theater Bass, the VSX-99's defeatable low-bass reinforcing control. If you want to get a no-holds-barred A/V receiver and have the bucks to spend on one, the 99 currently is unique—and uniquely satisfying. ■

MEMORY FREE CAMCORDER REPLACEMENT BATTERIES/CHARGERS

24 Hour Shipping ■ Lowest Prices ■ Longest Run Time

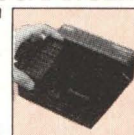
PANASONIC PB50 Orig. PAN.....	\$45.00
PANASONIC PB80/88 Orig. PAN.....	\$39.00
SONY NP77H 2400 mah.....	\$39.00
SONY 8mm 1500 mah.....	\$26.00
CANON 8mm 2000 mah.....	\$33.00
PALMCORDER 2000 mah.....	\$33.00
JVC GR-C9 Type C.....	\$36.00
SHARP BT 21/22.....	\$45.00
SHARP BT 70/80 2400 mah.....	\$39.00
RCA/HITACHI 8 mm 2400 mah.....	\$39.00

RAPID CHARGERS CAMCORDER CHARGER/DISCHARGER



6V, 7.2V, 9.6V runs from house or auto.
1 hr. time for Sony, Canon, Panasonic, RCA/Hitachi & most other brands

Charges 1 battery \$44
Charges 2 batteries \$69



NEW External Powerpac+

5 to 7 hours of recording time.

Powerpac+ includes:

- 6volt @ 10 amps sealed lead acid battery.
- Heavy duty pouch and belt.
- A charger for charging at home (optional charging cord for car).
- An adaptor of your choice.
- 12 volt @ 7 amps \$95

\$85



BATTERY TECH, INC.

28-25 215TH PLACE, BAYSIDE, N.Y. 11360 ■ FAX: 718-631-5117

800-442-4275



Brand New
Sony NP-98
3 Hours

SALE HOLIDAY SALE ORIGINAL PANASONIC SALE

PB-80 / 88	12v	2.3AH	\$35.00
PB-50	12v	2 AH	\$35.00

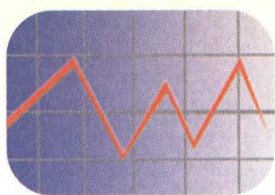
Rapid Charger/Discharger For any Panasonic Battery

Can use in house or car. Discharges and charges in one automatic cycle,

\$39.00

*Charges/discharges two batteries \$49.00

CIRCLE NO. 6 ON READER SERVICE CARD



By Design

**Engineering smarts
elevate Infinity's
Compositions package**

**TEST
826**

WITH FEW EXCEPTIONS, BETTER ENGINEERING NETS A better product, no matter what the industry. When the subject is high-quality speakers, engineers need a healthy respect for the laws of physics, a firm grasp on how the speakers will be used, and, most important, the skill to give their speakers a natural "voice." With the Compositions home-theater system, the engineers at Infinity—including Laurie Fincham, who spent many years developing fine speakers with KEF—have shown

that they're as expert with home-theater speakers as they are with traditional stereo speakers.

The system is comprised of two P-FRs, which combine main speakers

with integral powered subwoofers (\$3,000 a pair), a P-CC center speaker (\$779), and two P-QPS "Quadrapole" surround speakers (\$669 a pair). Together they form a sleek, stylish pack-

age that excels at creating a thrilling and eminently believable home-theater experience.

The P-FR measures only about 7.6 inches at its widest point; it's also 54.75 inches tall and 19.6 inches deep. Its slender, elegant facade seems all the more remarkable as you discover how the cabinets incorporate a 12-inch polypropylene/graphite woofer cone and a dedicated woofer amplifier: Sold in mirror-imaged pairs, left and right P-FRs are identical except for the location of their side-firing woofers—both are mounted in magnetically shielded subenclosures at the bottom of the cabinet, but the right speaker's woofer is

mounted on its right side and the left speaker's woofer is mounted on its left side. If room realities dictate that the woofers would be within a foot of the side walls, Infinity recommends swapping the speakers, so that the woofers point inward. The amps for the woofers (which Infinity doesn't rate, power-wise) also occupy the subenclosure. The P-FR's finish is a soft-touch charcoal-gray paint.

There's more to the P-FR than powered subs, of course. One 1-inch tweeter, two 4-inch midranges, and four 5.25-inch midbasses are mounted above the subwoofer subenclosure. The midbasses, midranges, and tweeter are configured as a D'Appolito array, which means that all seven drivers are mounted vertically, with the tweeter in between the others. When properly executed, the D'Appolito array is known to eliminate the phenomenon known as "lobing," in which tonal balance varies significantly with the location of the listener—the goal, therefore, is high-quality sound for virtually everyone in the room. An intricately sculpted cast composite baffle provides an assist, and the P-FRs are designed to be pointed straight ahead, not angled toward the listening position.

Infinity's pairing of main speaker and powered subwoofer offers significant performance advantages. Relieved of the necessity of reproducing low bass, the mid/treble subenclosure is virtually free of resonances. You also have all kinds of flexibility when it comes to

positioning the P-FRs, and you don't have to find space for a separate subwoofer or two.

Hookup and setup are simplified as well: While traditional subwoofer/satellite systems can spawn a rat's nest of wiring between amp, sub, and main speakers, a single speaker cable and an AC power cord (for the integral sub amp) are all that the P-FR requires. The need to experiment with subwoofer output level, crossover frequencies, and phase controls disappears.

Each P-FR offers a fuse and four controls at the bottom of the front panel. In addition to power on/off, a three-position ground filter can be used to minimize hum. There's a bass-level selector that can be set to LOW, MEDIUM, or HIGH; the selector is preset to HIGH, which is said to deliver flat bass response. Finally, you can engage or disengage an audio sensing circuit, which places the subwoofer amplifier into standby mode in the absence of an audio signal and turns it on when a signal is present. An LED positioned near the top of the subwoofer subenclosure glows green when the amp is on and red when it's in standby. Connections are made via gold-plated banana jacks.

The P-FR's design yields another compelling benefit: Since frequencies below 110 Hz are accommodated by their own amp, the engineers were able to increase efficiency across the remainder of the audio band. The P-FR boasts a sensitivity of an incredible 96 dB (2.83 volts, 1 meter). To put this

THE SHORT FORM

INFINITY COMPOSITIONS

Component type: Home-theater speaker system

Price: \$4,448

Target: Serious home-theater enthusiasts

Minimum requirements*: 32-inch TV, Hi-Fi VCR, topnotch A/V receiver

KEY FEATURES

- Two P-FR main speakers, one P-CC center speaker, two P-QPS "Quadrapole" surround speakers ■ Each P-FR houses one 12-inch powered subwoofer
- The P-FR employs a D'Appolito array ■ 96-dB efficiency for the mains and center ■ The P-CC's stand allows 25-degree angling ■ The P-QPS has an integral stand; wall-mount brackets are supplied ■ Gold-plated banana jacks all around

SUMMARY

- High efficiency and tremendous power handling yield superlative dynamic range ■ Built-in self-powered subwoofers simplify P-FR placement and setup ■ Produced dramatic and visceral bass ■ Spatially, Compositions disappeared into the soundfield it created ■ Superb midrange performance and ideal tonal balance ■ Ambience was exemplary ■ A leader in its price range

Circle 119 on reader service card

**To maximize its potential*

LASERDISC
ENTERPRISES

New Movies Old Movies and all the Classics

- Call For A Free Brochure
- Friendly & Fast Service
- Free Shipping In The U.S.*
- Every Title Discounted
- FedEx 2-Day Service
Only \$3.49 Per Disc

International CUSTOMER?

WE WELCOME YOUR
BUSINESS AND WE ARE
FAMILIAR WITH
INTERNATIONAL SHIPPING
& CUSTOM ISSUES.

United States

PH. 1.800.347.1941

FX. 1.800.619.DISC
(3472)

World Wide

PH. 1.770.955.8909

FX. 1.770.984.2173

10:00 - 7:00 EST MON-FRI

2516 COBB PKWY
SMYRNA, GA 30080
USA

VISA - MASTERCARD - DISCOVER
AMERICAN EXPRESS - C.O.D.
CHECKS - WIRES - BANK DRAFTS

* CONTINENTAL U.S. ONLY - UPS GROUND

Plug In...

To The Toshiba Home Theater Seminar EVERYWHERE!!

Toshiba is bringing its ultimate course in home theater to the country on January 13th LIVE via satellite. The Toshiba Home Theater Seminar features industry experts who will guide you through every aspect of selecting, purchasing and setting up a Home Theater System. Brought to you by Toshiba, Video Magazine, USSB and May Department Stores. Participating stores include:

- Foley's
- Hecht's
- Robinson's • May
- Kaufmann's
- Famous • Barr
- L.S. Ayres
- Filene's
- Meier & Frank

Course tuition is \$15. First 25 callers for each location will attend for free. Call 1-800-709-4400 now to reserve your spot and for your nearest store location. Space is limited.

Plus
New Major Market Seminars
For 1996

All Seminars Take Place on
Saturday Mornings

New York /
New Jersey PC Richard & Son
Los Angeles LA Tronics
Chicago Barretts Audio Video
(February 24)

Call 1-800-709-4400

For Exact Seminar Dates, Times,
Location And
Registration Information.

number in perspective, know that you need to double amplifier power every time you want to produce an additional 3 dB of output from a given speaker. A speaker that produces 90 dB SPL with 1 watt of input, for example, will produce 93 dB when fed 2 watts, 96 dB with 4 watts, 99 dB with 8 watts, and so on. Due to their high sensitivity, the P-FRs will play as loudly when driven by 50 watts as a typical, 87-dB-sensitivity speaker will with 400 watts! Power handling is rated as 150 watts, nominal impedance as 6 ohms.

The P-CC center speaker measures 6.5 x 23 x 7.7 inches (h/w/d). It employs one 1-inch tweeter, two 4-inch midranges, and two 5.25-inch woofers. A stand lets you angle the speaker over a 25-degree range. Sensitivity is similarly rated at 96 dB, so the P-CC will stay in balance with the P-FRs when all three are fed equal power; power handling is given as 150 watts, impedance as 6 ohms. Connections are made via gold-plated banana jacks.

The P-QPS's Quadrapole design places a 5.25-inch woofer on its front baffle and a pair of 3.5-inch midranges on each of two angled side baffles. This differs from a true dipole design, which employs identical driver arrays on front and rear baffles. The P-QPS measures 10 x 13.9 x 4.5 inches (h/w/d) and has a sensitivity of a very respectable 90 dB (2.83 volts, 1 meter). Design touches include an integral stand for table-top placement and supplied brackets for wall mounting. Power handling is rated as 100 watts, nominal impedance as 8 ohms; connections are made via banana jacks.

The combination of high efficiency and tremendous power handling gives Compositions a superlative dynamic range. Even at unrealistically high volume levels, the system never sounded strained or harsh, and explosive sound effects were reproduced without a hint of compression. Overall, the system possessed a natural dynamic ease that let me forget the hardware and concentrate on the movie or program.

Spatially, Compositions performed a delightful vanishing act, disappearing into the vast soundfield it created. Images were precisely and stably placed, with off-screen sound effects appearing well beyond speaker boundaries. Logic steering and pans traversed the soundstage with no fluctuation in image size, tonal balance, or volume level. Give credit to the P-CC center speaker,

which is a seamless complement to the P-FRs. Play a movie through the P-CC alone and you'll hear dialogue in a large, realistic space, eliminating the need to sit in a centrally located "sweet spot." In sum, Compositions accommodates a broader range of seating positions than any comparably priced home-theater system I've heard.

Ambience, largely the province of the P-QPS surrounds, was exemplary. I've long preferred the kind of seamless, enveloping ambience created by dipole and bipole surrounds, but the P-QPS conveyed rear-channel information with more subtlety than any dipole I've heard. It also shares the ability of the P-FR and P-CC to deliver a consistent sense of space over a wide seating area.

I found Compositions' tonal balance to be nearly ideal, with dramatic and visceral bass that never sounded exaggerated. With well recorded orchestral CDs, I occasionally felt that the P-FR's woofer lacked the transient speed of the speaker's mids and tweeter, but this was never apparent when I was enjoying movies, TV shows, or videos.

Midrange performance was superb. Whether I auditioned male and female voices, solo piano, or stringed instruments, the middle frequencies possessed the open, detailed quality that's the hallmark of fine speaker engineering. There were no boxy colorations of the sort that plague many other speakers. Overall frequency response was smooth, not fatiguing in the least, and nicely proportioned, with no part of the audible spectrum calling undue attention to itself. With live music recordings, I found the highest treble overtones to be slightly softened—a nod, perhaps, to the fact that most movie soundtracks have been equalized to emphasize the upper octaves, since the front speakers in movie theaters are placed behind the screen. Much to its credit, Compositions never sounded bright or harsh with movies.

THE ULTIMATE SOUND QUALITY, STUNNING low bass, topnotch dynamics, and uncommon user-friendliness of Infinity's Compositions system add up to a high-brow package that's tough to beat. It easily ranks among the finest home-theater speaker systems in its price class in terms of pure sonics, and its flexibility is unparalleled. If you're looking for a high-performance system you can live with, Compositions will sweep you off your feet. ■

RIP OUT THIS AD

And Tape it to Your TV

Tape it
Here

Rip
Here



Do it Now as a Reminder... Here's Why.

Maybe tonight, maybe tomorrow or maybe next week, you'll be watching a great movie on your home theater system or on your DSS satellite system and you'll notice that you'll have to turn the volume up to hear what they are saying, whisper whisper. Then you'll have to turn the volume down so you don't get blasted, **BOOM! BANG!** Then up. Then down. Up. Down. Up. Down... You get the picture. It happens to all of us.

The Volume Stabilizer™ to the rescue. It's a high quality piece of audio equipment that attaches to any home theater or DSS system to maintain the volume at the "just right" level. It automatically boosts the soft dialogue so it's easy to hear and reduces the excessive loud passages and channels that can blow you out of your chair. Nice!

Visit your local Audio/Video dealer and say "I want a Volume Stabilizer™!"
Or call 800-366-9290 or write to get more information.
Get control of your volume with the Volume Stabilizer™.
You'll be happy that you saved this ad. So will your family.



Four models to choose from

Brookline Technologies

2035 Carriage Hill Road
Dept. VM-Info
Allison Park, PA 15101-3350
800-366-9290

CIRCLE NO. 62 ON READER SERVICE CARD

AC-3 really gives speakers a workout. Luckily, we've had time to train.

Boston Acoustics Home Theater Options

SubSat Three-Piece Systems

Tiny satellites and big theater sound.

Compact Reference Series

Incredible sound from compact speakers.

▶ Lynnfield VR Series

Audiophile sound with the full impact of AC-3.

Boston Acoustics THX® System

Dubbing studio quality sound.

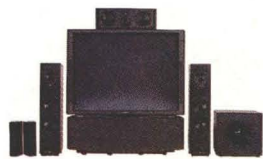


INTRODUCING THE NEW AC-3-READY HOME THEATER SYSTEM FROM BOSTON ACOUSTICS.

When we started working with the specs for AC-3, Dolby Labs' new digital home theater format, two things were apparent: One, AC-3 is nothing short of spectacular. And two, to realize the advantages of AC-3, speakers must work a lot harder than before.

First, AC-3's improved definition means if your front stage speakers aren't tonally matched, your ears will know it. That's why both our Lynnfield mains and center channel speakers use identical VR tweeters and matched midranges for uniform tonal balance and dispersion. So they easily reproduce the dialog clarity and stunning front soundstage effects that AC-3 promises.

Another AC-3 consideration: Since all speakers may be fed bass extending to 80Hz, centers and surrounds must play low. Good thing our VR10 and VR12 center channels and new Lynnfield VRS Pro surrounds were built to handle this very spec. Finally, a subwoofer must cleanly reproduce five discrete bass channels, plus AC-3's thunderous LFE (low frequency effects) channel – something our new VR2000 300-watt powered subwoofer can do without breaking a sweat. Get the whole scoop on our new AC-3-capable speaker system. Call 617 592-9000. Just remember to do some stretches before dialing.

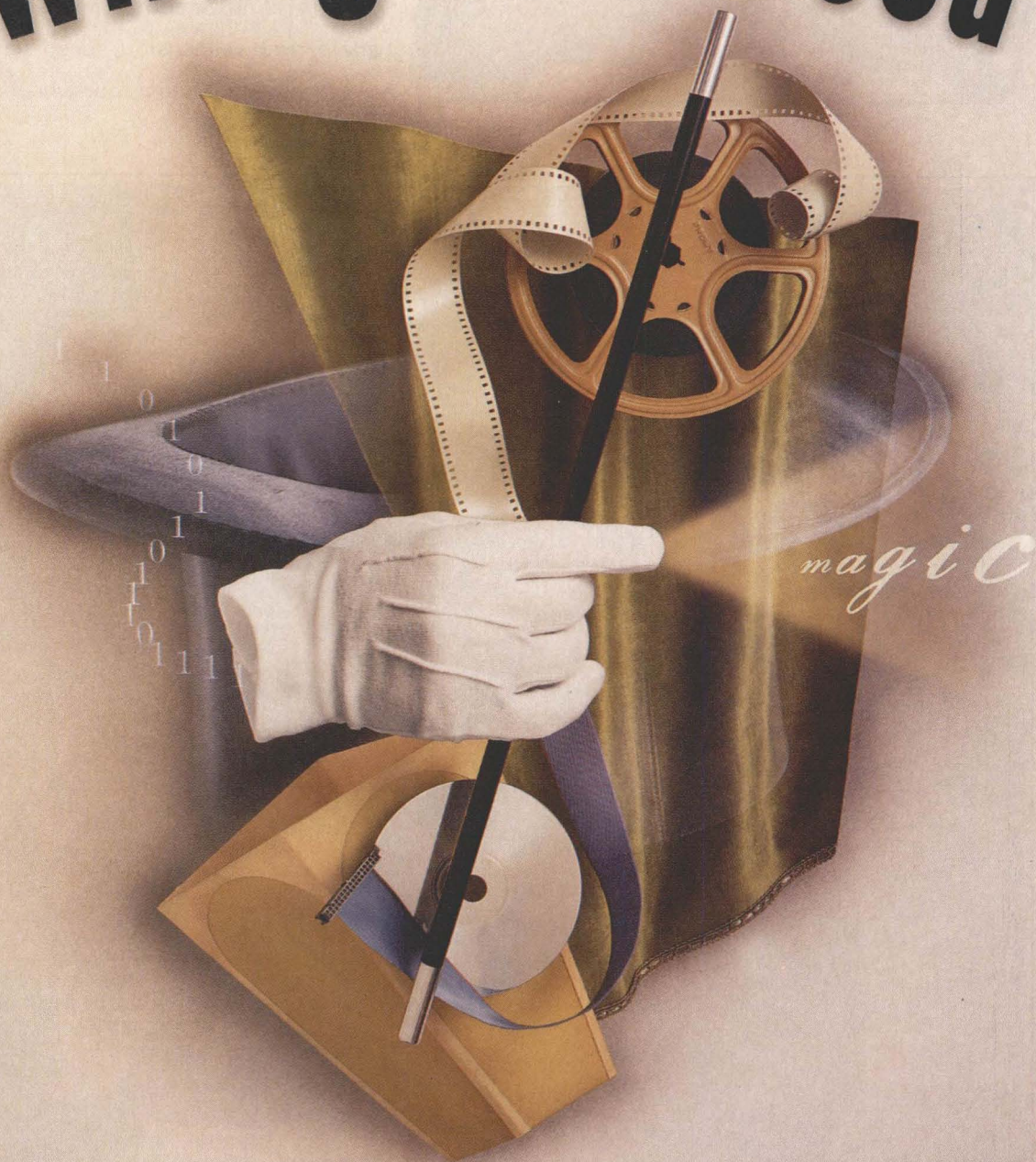


This Lynnfield VR system includes our award-winning VR40 mains and VR12 center channel, plus our new VRS Pro surrounds and VR2000 300-watt powered subwoofer. (This system reproduces 21–20,000Hz \pm 3dB and an astounding 105dB at normal listening position.)

BostonAcoustics

70 Broadway, Lynnfield, MA 01940. Dolby and AC-3 are registered trademarks of Dolby Laboratories, Inc.

Wiring the 'Wood



In the digital world you're either a one or a zero. So far, most of Hollywood is a big zero. Players may toss around words like *convergence* as they flash their Envoy digital assistants, but they show scant understanding of the silicon revolution. Still-

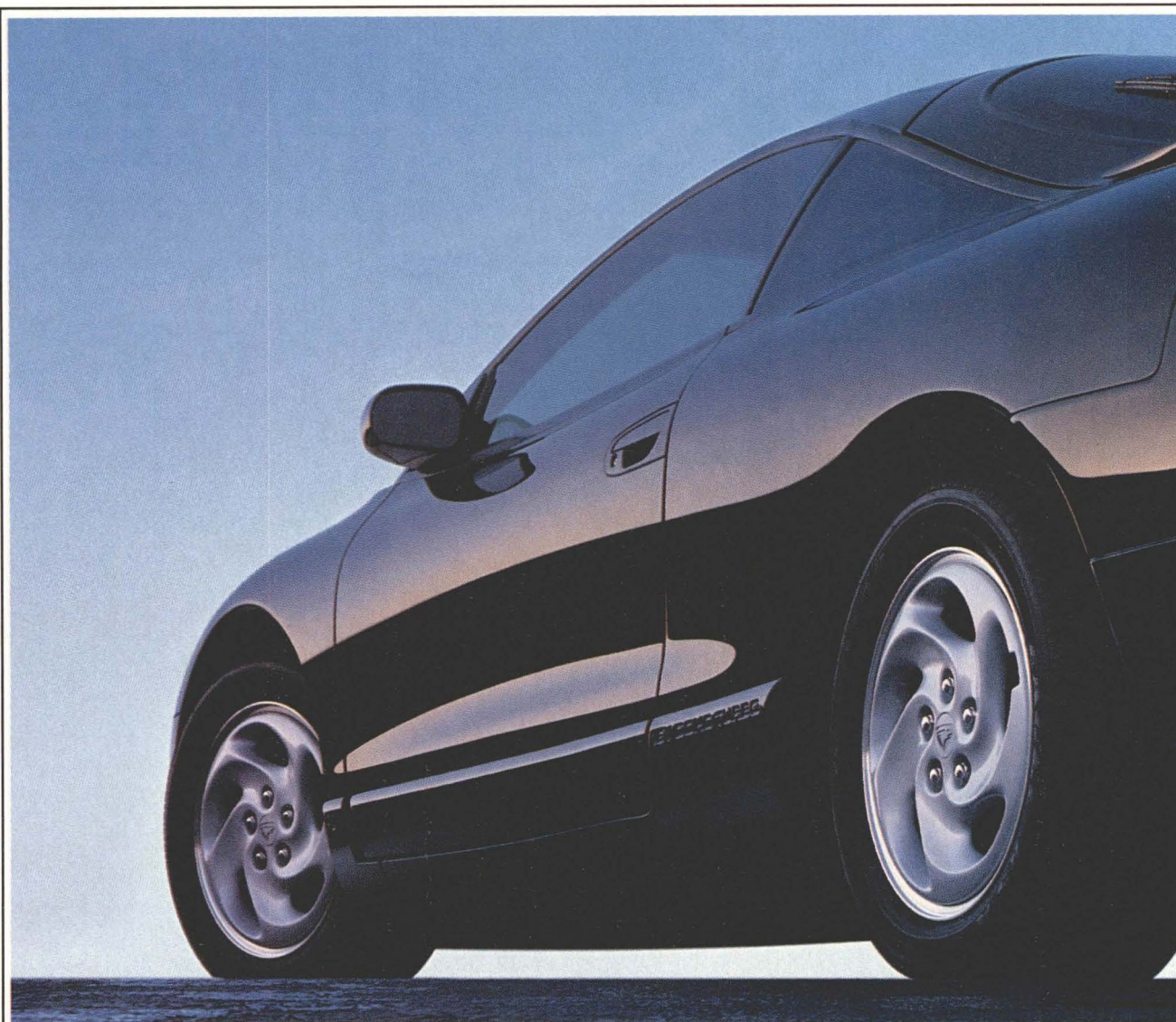
spiralng costs in flmdom are the tip-off: In a truly wired industry, movies would get cheaper even as they offered more. In this section, PREMIERE focuses on the few pioneers who get this—Hollywood's digerati. These people are freeing themselves and

others via digital editing, image manipulation, and (before long) new forms of distribution. Together they are drafting the future of cinema, a future in which the screen is as limitless and as democratic, finally, as a blank page in the hands of a novelist.



EAGLE TALON TSi AWD is engineered to deliver a truly exhilarating combination of breathtaking acceleration and pinpoint control.

With its advanced all-wheel drive system, race-proven suspension, speed-sensitive power steering, and available four-wheel anti-lock disc



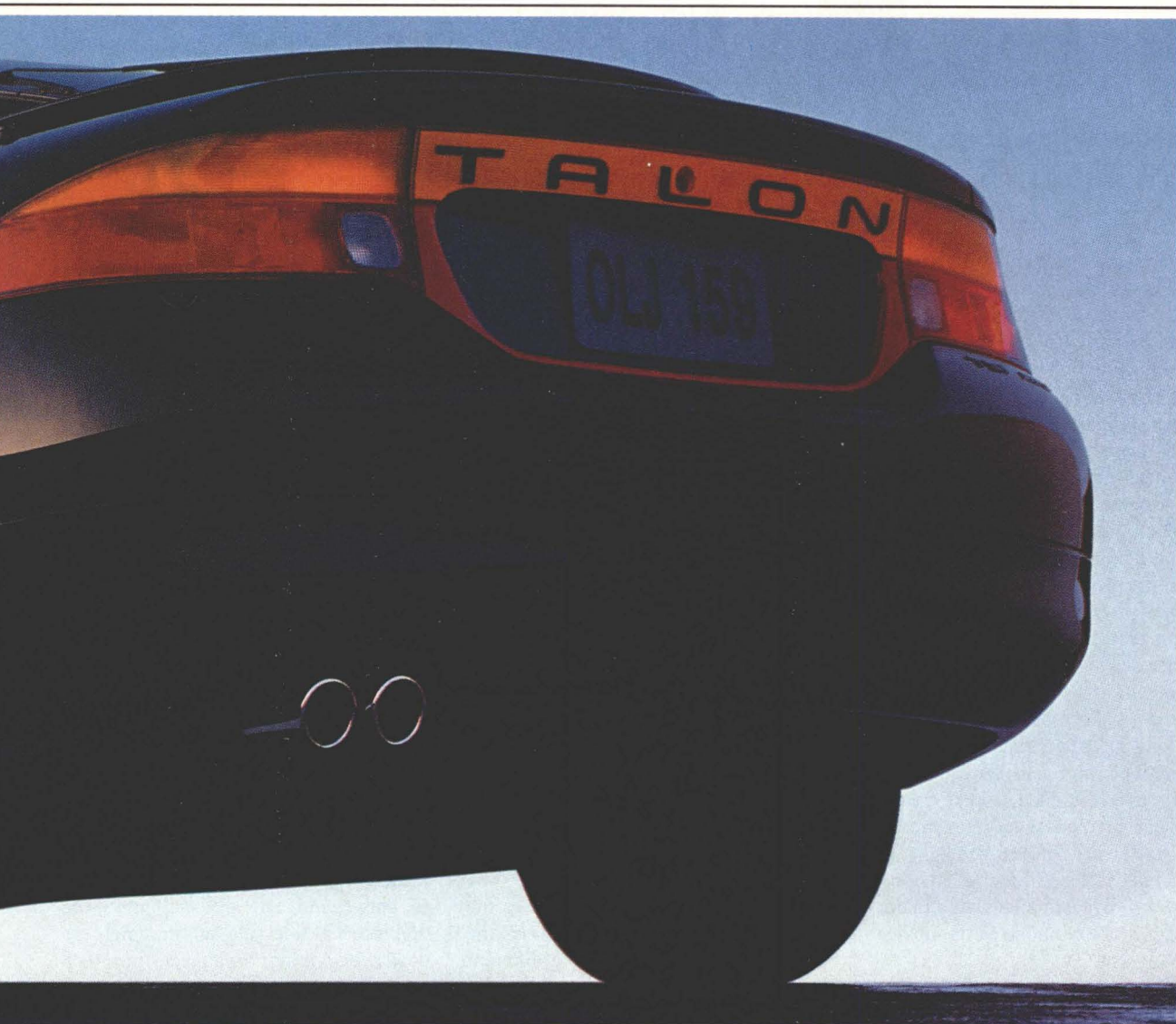
THINK OF IT AS A 210-HORSEPOWER TURBOCHARGED

brakes, the Talon TSi AWD will go exactly where you aim it. Its incredible power comes from a 210 horsepower intercooled turbocharged engine that's capable of launching you from a standing start to 60 mph in just 6.6 seconds.*

Schedule an appointment to take The Eagle

Test Drive today and experience its unique blend of style, technology, and performance firsthand. Once you do, we think you'll agree that our engineers definitely hit the bull's-eye.

THE EAGLE TEST DRIVE
1-800-2-TEST-EAGLE



CROSSBOW. NOW THINK OF YOURSELF AS AN ARROW.

FLEX TIME

SYNTHETIC ACTORS

Meet the ultimate bodybuilder—Kevin Mack, who's constructing a digital human muscle by muscle • by Alan Deutschman

IT'S MORNING IN Venice, California, the funky-chic beach mecca for L.A.'s body worshipers. At World Gym and Powerhouse Gym, hardbodies are already pumping iron and exuding attitude. Everyone looks like a page from *Muscle & Fitness*; everyone dreams of becoming the next Arnold.

The next Arnold, however, is more likely taking shape in a darkened room just a block away. There, a 36-year-old former bodybuilder named Kevin Mack labors in the gloom to construct the perfect human physique—as a three-dimensional image on a computer screen.

Mack's creation, a so-called virtual actor, already has a set of bones. Right now he's getting bulky, well-toned muscles. Before long he'll be given skin, a face, and hair. The skin will slide over the bulging pecs and wrinkle just like the real thing. Tens of thousands of strands of hair will each react differently to light and wind, just like real hair. Mack even hopes to endow his digital human with a brain.

Well, enough of one to act in movies.

AT DIGITAL DOMAIN the faces of the special-effects firm's workers are illuminated only by the eerie radiance of computer monitors. Even in the murk, though, Kevin Mack's cubicle is easily identifiable. His shelves are filled with

anatomy books, and the divider is plastered with black-and-white photographs, studies of the extraordinary musculature of Jeff Henry, a friend who works as a trainer out of nearby gyms.

Mack himself isn't so pumped up anymore. Once, he carried 200 pounds of lean beef on his five-foot-eleven-inch frame; now he's down to a far softer 180. He's still obsessed with muscle, though. It's just that these days he's building it on his Silicon Graphics workstation.

Mack clicks on his computer mouse and brings up the image of a human skeleton. Fibrous red strands covering the shoulder and arm represent muscle, the fruit of his efforts so far. He points to the bicep. Eight different factors—including rotations, joint movements—affect its shape, how it shortens and lengthens, its volume and tension. And the bicep is a relatively simple muscle.

Next he traces the lines of the collarbone, shoulder, and upper arm. The shoulder, Mack explains, is one of the most complex muscle systems in the body, and is made up of five different joints. No one really knows exactly how it works. Not the foremost doctors, he says, not even kinesiologists, who specialize in studying the body in motion.

Mack, however, is constructing his own simulation of the shoulder from the ground up. If he figures the connections right, he'll be able to make the muscles ripple across his computer screen just as

Jeff Henry's do in real life—and it'll be just a matter of time until his creation starts stealing work from human actors.

In the meantime, though, Mack is applying his research to other projects for his employer. Digital Domain is fashioning mutant creatures for this year's Marlon Brando feature at New Line, *The Island of Dr. Moreau*, for instance; Mack will build many of the beasts in his computer. And Digital Domain may someday do effects for James Cameron's long-delayed *Spider-Man* project. That would be a godsend for Mack, since the web-slinger is a leading candidate for the first fully realistic, human-seeming digital movie star.

DIGITAL CHARACTERS are becoming old hat these days. In *Casper* computer-generated ghosts seem to log almost as much screen time as the human stars. Industrial Light & Magic—the spooks' creator—just upped its own ante with *Jumanji*, featuring lions that might fool even a zoologist. And before long ILM will raise the bar higher still with the fire-breathing star of *Dragonheart*.

Yet humans have always been a special case, particularly hard to create in a computer. Moviegoers look at humans all day; they're attuned to how real people move and act, and can sense the slightest off note. Digital stuntmen are slowly beginning to appear, but they can't withstand scrutiny for more than a few seconds of screen action.

Indeed, some experts question whether building a realistic "synthespian" is even a worthwhile goal. "I haven't seen a script crying out for it," says Jim Morris, who, as president of Lucas Digital Ltd., runs ILM. "We like to focus on things you can't accomplish other

PHOTOGRAPHED BY DAN WINTERS



MUSCLE MEN:

Special-effects expert Kevin Mack (center) is building a synthetic human based on the physique of his friend, bodybuilder Jeff Henry (left and right).



“www.atlanta.olympic.org Cool,

Paul was on the 'Net.

As usual.

Checking out the sites.

As usual.

When he saw something
unusual.

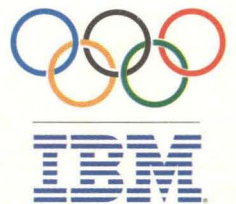
the Games are open to surfers.”

For the first time ever,
the greatest sporting
event of all can be found
by surfing cyberspace.

We've set up the Atlanta
Games home page for up-
dates on qualifying events,
statistics, ticket information,
even a video fly-through
of the Olympic Stadium.

It's just part of IBM's
integral role in helping to
plan, manage and run the
Olympic Games.

For a different look at
the Games, check out
www.atlanta.olympic.org



Worldwide Information
Technology Sponsor

ways"—with real actors, for example.

Still, Digital Domain insists its pursuit makes sense. Kevin Mack's boss, Scott Ross, used to run ILM, which made so many breakthroughs with *Jurassic Park*. The computer-generated dinosaurs in that movie were stunningly realistic, says Ross, yet they often had to be retouched by hand to produce convincing muscle contractions.

"Why can't you get musculature that happens for free?" Ross began to wonder. "Can we build into the software something that will allow the muscle and tissue to act physiologically correctly and not have the animator worry about it?" And if that were possible, and not too expensive, why would animators *not* build a digital human? When Ross left ILM in 1992 and cofounded Digital Domain the following year, solving the problem would be one of his priorities.

KEVIN MACK'S fascination with the human form began when he was a kid in the San Fernando Valley; his father gave him a set of barbells when Kevin was ten. Honing a buff anatomy quickly turned Mack into an anatomy buff, and his focus on muscles melded easily with a love of art.

In grade school Mack drew his own comic books, featuring highly defined superheroes. Eventually, he studied

artists' guides and even medical primers—anything that focused on the body. His visual knack was hereditary: His mother was supervisor of ink and paint for Disney's animation department; his father painted backgrounds for such classics as *Fantasia*, *Snow White*, and *Pinocchio*.

After attending art school, Mack became a painter, sculptor, and teacher of life drawing. During the 1980s he also worked frequently in Hollywood as a freelance effects artist, toiling obsessively to craft tiny clay muscles on the movable figurines used for stop-motion shots. His dream was to create a no-compromises model of the human body.

In 1993, Mack became one of Ross's first hires at Digital Domain, this time as a computer artist. With an innate love of technology and the example of *Jurassic Park* fresh in his mind, he knew his moment had come. Mack quickly launched what he called the HARD project, which stands for Human Animation Research and Development. He picked the acronym mostly as an in-your-face gesture: His colleagues told him that his mission was dauntingly difficult.

Yet the first step was fairly easy, as it turned out. Mack needed a set of digital bones, and he was able to get them ready-made from Viewpoint Data Labs in Utah, which sells digital models of common ob-

jects. Mack retouched the bones to his own exacting expectations.

The next move was tougher—making and attaching muscles. Other special-effects experts tend to cheat on this task. One approach is to perfect a number of key frames and "in-between" between them to create the illusion of flexing. Other techniques include animating every single frame by hand, or animating just a few important muscles.

But with those methods, says Mack, "you don't get eighteen muscles changing the forearm. You don't get the sliding and rippling under the skin, the complex deformations of mass and inertia. I suppose the visual advantages of doing it my way are subtle. But it's a big subtlety."

To simulate muscle movements properly, Mack and his HARD collaborator, Caleb Howard, realized they had to compile "a body of data that hadn't existed before in the medical profession," as Howard puts it. "Dissection is done on dead people," he says. "There's no data on how they move—only how they lie. Even kinesiology texts don't have this information."

SINCE THEN, the HARD project has ebbed and flowed according to Mack's schedule at Digital Domain. HARD doesn't generate revenue, so Mack must do his research between movie gigs. Still, certain films lend themselves to his personal agenda—and Digital Domain has been good about sending them Mack's way.

These days Mack is working on *The Island of Dr. Moreau*, which is currently filming in Australia. The Brando vehicle will feature strange creatures that are part human and part animal. Mack isn't saying how he'll manage that trick, but it's a safe bet that it'll involve digital muscles.

The ultimate testing ground for Mack's ideas, however, may be *Spider-Man*—if the project is ever extracted from litigation for director and screenwriter James Cameron, a cofounder of Digital Domain. Spidey is an ideal candidate to be played by a virtual actor. His stunts are impossible for real humans but easy for a digital phantasm. And his tight-fitting costume eliminates three of the hardest areas for an animator to render: hair, loose clothes, and facial expressions.

Hair is especially tough because most digital animators build their three-dimensional models from lots of little jig-

GETTING A PERM, THE DIGITAL WAY



A HAIRY TASK: Long human hair is notoriously hard for computers to mimic, but Kevin Mack had to find a quick-and-dirty solution for a transformation scene in *Interview With the Vampire*. **1.** His first move was to make a digital copy of Kirsten Dunst's straight hair. Instead of modeling individual strands, however, Mack created large groupings that would move together to become curls. **2.** With colleague Judith Crow, Mack described the path each digital clump would follow as it curled. **3.** When the curling was complete, Mack morphed back to an image of Dunst's new do.

saw pieces called polygons. The more tiny polygons, the more fine-grained and realistic the image—and the more computations the computer must make. In five years, as computer power continues to get cheaper, modeling tens of thousands of long hairs won't be a problem: Already, short hair and fur are feasible. But for now Alicia Silverstone's locks are safe from digital replacement.

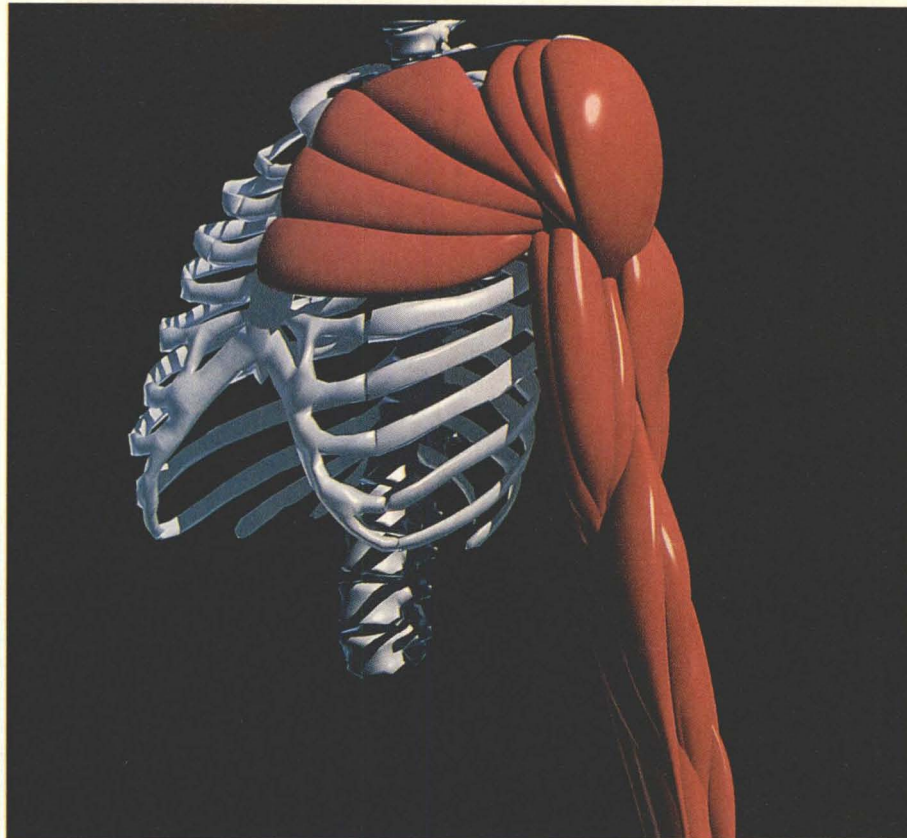
Clothing is just as complex to simulate. Every shadow and wrinkle is a problem. Form-hugging Lycra is easy; a gauzy shift is a nightmare. And facial animation is even harder, since it's not just an exercise in muscle building but also an elusive expression of humanity. Several companies are trying schemes that place motion-sensing armatures over actors' faces. Digital Domain's own project in this area is called FACE, for Facial Animation Capture Environment. So far, however, it seems to exist mainly as a clever acronym.

DESPITE THE obstacles, Kevin Mack has no doubt that, given a few years and enough money, he and others will be able to construct realistic humans inside a computer. Ultimately, as with real-life bodybuilding, it's just a matter of discipline. The main question, he says, is whether these virtual actors will be able to react properly to a director's instructions.

To pull off this feat, Mack and Howard look to such areas as neural nets and artificial life; they believe these advanced technologies eventually will allow virtual actors to learn to walk, and perhaps even to smile, just as real children do. That'll obviate the need for the expensive "motion capture" apparatus that currently translates movements into computer data. Before long, say Mack and Howard, a movie director will be able to give digital characters such simple commands as "Walk," "Bend over," or "Pick up that object."

Riffing off each other, the pair pretend they're directing a movie five years in the future. "Walk with *more anger*," Howard commands a digital character. "No, *more flamboyantly*," says Mack.

Without the need to hand-animate such actions, the cost of digital characters will plummet, making them even cheaper than extras. Indeed, many figures in the crowd scene at the end of *Strange Days* were rudimentary digital humans created at Digital Domain—although they were seen only from a distance.



PLAYING GOD: When building his digital creation, Kevin Mack started not with a rib but with an entire set of bones. Putting meat on them is the hard part. So far, these arm and shoulder muscles are the only ones he's finished.

If facial animation improves enough, virtual actors might even become an alternative to big stars. After all, a digital character never sulks in his trailer—and doesn't demand points on the back end.

It'll be expensive, of course. Digital Domain is investing tens of thousands of dollars a year in the HARD project, but that doesn't count the high-octane computers, Mack's time, past research, and the massive funding from projects like *Dr. Moreau*. In all, the first digital human with properly functioning muscles could cost, say, \$10 million to develop and might be ready by the end of this year.

But here's the beauty of computer technology: After that initial push, everything else basically comes for free. It's a cinch to copy a digital character and then make it fatter, taller, or hairier. Even changing its gender is hardly a stretch.

Of course, even when digital actors cost \$79 at CompUSA, Hollywood will still spend oodles to make its custom-built synthetics look better, move better, emote better. Such investments make sense. Consider this: By 1999, Jim Carrey will likely command \$30 million for *The Mask IV*—and he'll be half computer generated in that movie anyway. Spend far less developing a superb digital equivalent and you've got CyberJim

on the payroll for as many *Mask* movies and games as you like.

"I had a conversation with Arnold Schwarzenegger and Jim Cameron recently," says Mack. "I said to Arnold, 'It won't be long before we build your body and you can license it out while you vacation in the Mediterranean.'"

Schwarzenegger seemed genuinely interested, he recalls, but a bit nervous. Still, the actor agreed once again to sign Mack's copy of his 1977 book, *Arnold: The Education of a Bodybuilder*, which he had first signed at a Valley mall when Mack was just another eighteen-year-old bodybuilder who idolized Mr. Universe.

"The real consideration will be when these virtual actors decide they don't want to do it anymore," muses Mack, sounding now like he's hashing out the plot for Schwarzenegger's next movie.

"Yeah, we're just dying to get at neural nets and artificial life," says Howard.

"But before this thing can have a mind," Mack reminds him, "it needs a body."

And he turns back toward his computer. ■

Alan Deutschman, a former writer for Fortune, is working on a novel about Silicon Valley.



EAGLE VISION TSi WITH AUTOSTICK.®

Could it be the sheer excitement of shifting without a clutch that causes you to grasp its steering wheel or the fact you don't ever want to let it go? Probably both, especially when you consider Vision TSi is the first sedan



WITH OUR REVOLUTIONARY NEW AUTOSTICK SYSTEM, THE



in the world with The AutoStick System.

Not only can AutoStick operate with all the ease and convenience of an automatic, but move the gear selector into the AutoStick mode, and you can shift gears without clutching by simply tapping it to the right to upshift and left to

downshift. In fact, *Motor Trend* said, "AutoStick is ingeniously simple in operation."* Take The Eagle Test Drive, and discover that while AutoStick is easy to use, it's practically impossible to let go of.

THE EAGLE TEST DRIVE
1-800-2-TEST-EAGLE

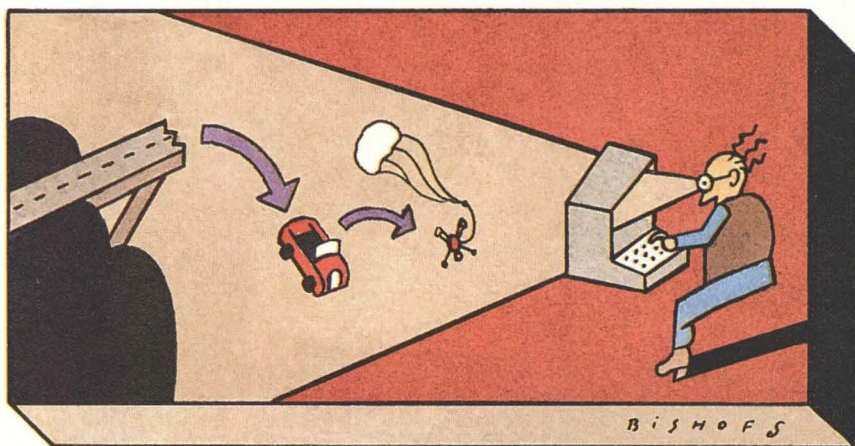


ONLY THING YOU'LL NEED TO CLUTCH IS THE STEERING WHEEL.

ENDANGERED SPECIES

LAST CHANCE TO SEE

As computers roar into Hollywood, some movie institutions may gradually get squeezed out



THE STUNTMAN

When you're digital, you don't need a safety net • by Thomas Hudson

IN MORE AND MORE action movies, digital know-how is replacing deriding-do as the vital ingredient in pulse-quickenning stunts. And for Hollywood's elite cadre of stunt performers, that's both a boon and a threat.

Computers have allowed the best "gags" to become more spectacular and safer at the same time; for that, even the wildest daredevils are grateful. But technology has also advanced so far that many stunt sequences can now be performed safely by movie stars themselves—or even constructed entirely inside a computer.

In *Judge Dredd*, for example, computer-created stuntmen streak across the sky on flying motorcycles. Batman's startling sixty-story plunge from a rooftop

into a manhole-size opening for *Batman Forever* was performed by a digital figure too. Harrison Ford did many of his own stunts in *Clear and Present Danger*—with a hefty assist from computers. And Tom Cruise is expected to set new standards for apparent risk-taking in next year's *Mission: Impossible*.

The key to this new world of stunts is simple: Computers are getting better at mimicking—and altering—reality. Some of the advances are pretty basic. For example, the technology for splicing actors into dangerous scenes has lately become nearly seamless, so that a speeding truck in *Timecop* looks as if it's really about to hit Jean-Claude Van Damme. Previously, such tricks were easier to spot.

Other improvements are less obvious, like the capacity of computers to remove part of a highway in *Speed*. Suddenly, an Evel Knievel-style bus jump isn't as daunting as it seems. Then there's the

ability to add dangerous elements to a scene after it's been shot—making a horse seem to be impaled in *Braveheart*, or making an explosion appear to singe an actor who's actually at a safe distance. "We have made it practical to do many stunts that would be impractical in a live situation," says John Dykstra, a top visual-effects supervisor who got his start on *Star Wars*.

Of course, none of this means that stunt performers are headed for the unemployment line—at least, not for a long time. Human beings are still cheaper than computer imagery for gags that aren't too dangerous or too complicated, and they'll usually play a role even in electronically assisted stunts, wearing rigs that will be digitally erased from the final image. In fact, safety wires these days often are thick, orange-painted affairs. They're stronger than when they were designed to be as invisible as possible, naturally. But mainly they're easier for a computer to see.

"Computers make work safer for stuntpeople," says Kenny Endoso, a veteran stuntman who has worked on such movies as *True Lies* and *The Terminator*. "We don't have to take unnecessary chances; it'll save a lot of broken bones."

Real people will also be needed to "sell" some stunts involving completely computerized images. Take the sixty-story leap in *Batman Forever*: A real person performed the takeoff and landing. "People want to feel the jeopardy involved in stunts," says Conrad Palmisano, a stunt coordinator for the movie. "If the audience knows it's all a joke, the stunt loses its excitement."

As digital manipulation keeps getting cheaper, however, computer imagery will usurp more and more stunt work. It's a simple economic calculation: Location shooting can cost hundreds of thousands of dollars—and it's only getting more expensive. "That sort of money buys you some pretty sophisticated computer graphics," notes George Joblove, a visual-effects supervisor at R. Greenberg & Associates, a New York effects house.

"As digital stunts become more cost-effective," says Jerry Bruckheimer, a producer of such big action films as *Crimson Tide*, "you're going to see some amazing things going on in movies."

Thomas Hudson, a former PREMIERE staffer, is a freelance writer in New York.

ILLUSTRATIONS BY MAMIE BISHOP

THE BACK LOT

Rome wasn't built in a data bank—but soon it will be • by Lauren Goldstein

THE SETS BUILT for William Wyler's 1959 epic, *Ben-Hur*, covered more than 300 acres. Over 1,000 employees labored to construct a full-size arena for the famous chariot race; skilled Italian sculptors carved huge statues of Roman gods.

This will never happen again.

The sets for a modern *Ben-Hur* could be built just as elaborately—and far more cheaply—as three-dimensional computer images assembled by a small team of digital experts. The resulting back lot would exist in a disc farm that's measured in gigabytes, not in square feet. And the same database could later generate revenue as the setting for *Ben-Hur*, the Arcade Game; *Ben-Hur*, the CD-ROM; and *Ben-Hur*, the Ride.

Consider the Gotham City set used in *Batman Forever*. It began life as a computer database built for *Batman: Mask of the Phantasm*, an animated feature. After being tweaked extensively—including the addition of statues not from Italy but from a mail-order supplier of digital art—it served as a baroque backdrop for the hambone villainy of Jim Carrey.

Now Gotham City lives on in Silicon Graphics computers on the Warner Bros. lot, ready for further duties. Soon a stripped-down version of the skyline will appear in the logo of Warner's new international television channel. In coming years it is likely to show up in theme-park attractions and video games—and perhaps in *Batman IV*. "Everything we build we plan to reuse," says Ariel Shaw, the man in charge of Warner's new digital-effects facility.

At Disney, too, digital sets are being recycled across several media. By next Christmas, for example, the studio plans to release an interactive *Aladdin* game. The setting is adapted from the database used for the Magic Carpet virtual-reality attraction at Disney's Epcot Center in Orlando, Florida—which in turn uses some of the computerized animation from *Aladdin*, the movie.

The rise of digital sets doesn't mean that actors will suddenly spend all their time in front of blue screens, which allow images to be isolated and spliced into computer-built backgrounds. Instead, a probable first step is for 3-D computer

imagery to begin replacing older methods, such as miniature models and the elaborate background paintings known as mattes.

For full-scale work, digital artistry will mostly be used to enhance existing physical reality—making twenty-foot facades look 100 stories high, or putting a bomb crater in downtown L.A. The result: less demand for skilled set builders. In *Baby's Day Out*, for instance, the truant infant did most of his crawling in a computer's imagination rather than in a faux cityscape. Effects gurus simply mapped photographs of Chicago buildings onto computer models and assembled their fake metropolis digitally, saving at least \$500,000.

Computers also eliminate the need for some location shooting. Actors can now be stripped digitally into footage shot by second-camera crews, as in *True Lies*—or even into stock scenes. "Anything that gets the shot works," says Tim Landry, visual-effects supervisor at Dream Quest Images. "We sometimes scan in 35mm prints from Thrifty and use those."

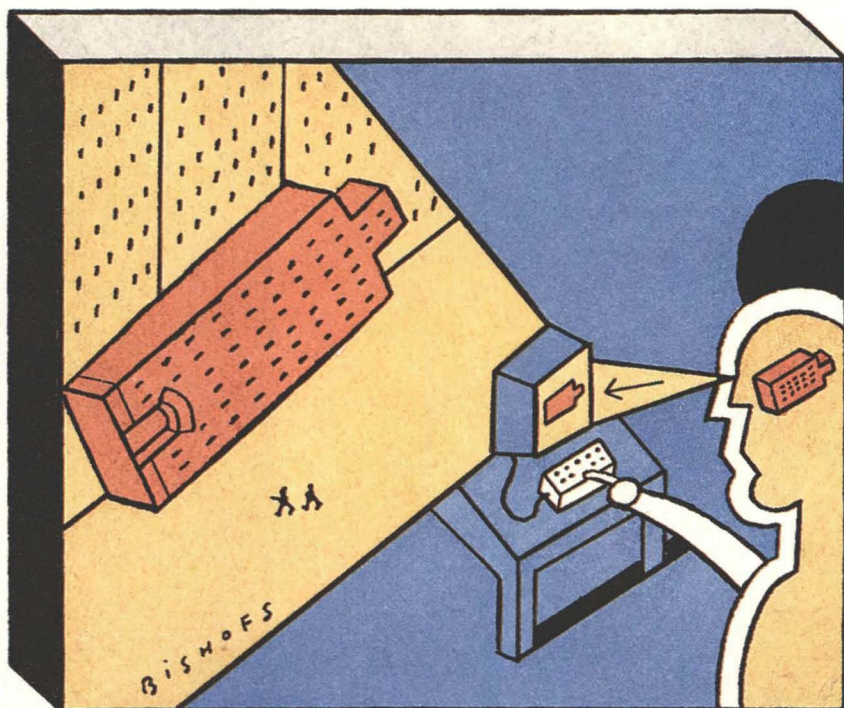
And digital effects can solve logistical problems caused by physical sets. In Spike Lee's upcoming *Girl 6*, there's a shot showing a character's point of view as he falls down an elevator shaft. Instead of filming in a real elevator shaft or building a scale model—both horrible lighting situations—Lee asked Balsmey-

er & Everett, Inc., a New York effects shop, to build the set in a computer. Having solved the lighting dilemma, Lee could tinker with the scenery and the camera moves long after principal photography had wrapped.

For all these reasons, digital sets will soon become more and more common in Hollywood. Granted, there are still a few glitches: Some digital animation still doesn't look 100 percent realistic. And highly detailed 3-D images may take daunting amounts of horsepower to render and store—a fact that led the architects of *Batman Forever*'s Gotham City to build many of their structures as digital facades. "We're making movies out of ones and zeros," says visual-effects supervisor Michael Fink, who worked on *Braveheart* and *Batman Returns*. "It is not an easy business."

But computers keep getting cheaper and better and, says effects producer Tricia Ashford (*Mortal Kombat*), "the technology is already 80 percent there." The main obstacle now, it seems, is the reluctance of filmmakers to hand their vision to a bunch of computer techies. "Initially directors will say, 'I only want to shoot on location,'" says Fink. "Then, when faced with budgeting and schedule problems, they'll acquiesce."

Lauren Goldstein (LaurenBG@aol.com) is a writer based in New York City.



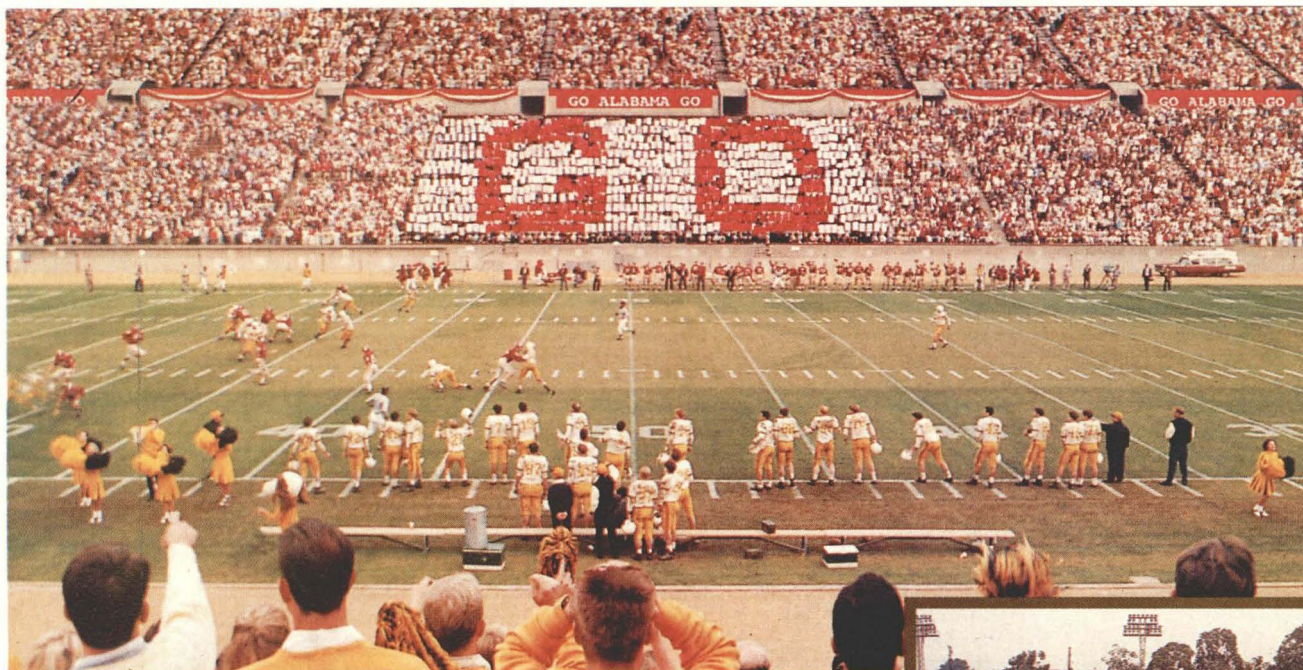
SAMSUNG

simply vivid

TV so real, you'll get too close. 1 800 so simple.

simply samsung.





WHO KNEW?

DIGITAL MANIPULATION OF MOVIE SCENES

Special effects aren't just for special occasions anymore; they're used to fine-tune the most mundane details • by Lauren Goldstein



CROWD CONTROL: By now everyone knows *Forrest Gump* used computers to play with reality. But many of the effects weren't as flashy as the digital amputation of Gary Sinise's legs. Clouds were put in the sky, upside-down flags were righted, and, as in this example, huge crowds appeared from nowhere.



INTERNATIONAL TRADE: In the future of *Demolition Man*, all restaurants are Taco Bells (above, the logo is behind Sandra Bullock's head). But that chain isn't well-known abroad. Solution: Change them to Pizza Huts (below) for the foreign release.



BRIEF ENCOUNTER: Disney wanted to market *My Father, the Hero* by showing its trailer along with G-rated movies. Unfortunately, Katherine Heigl's outfit (left) didn't have quite the, um, material to play to the *Lion King* crowd. A quick digital paint job meant the Mouse could have its cheesecake and eat it too.

CLOCKWISE FROM TOP: ILM (2); CINESITE (4)

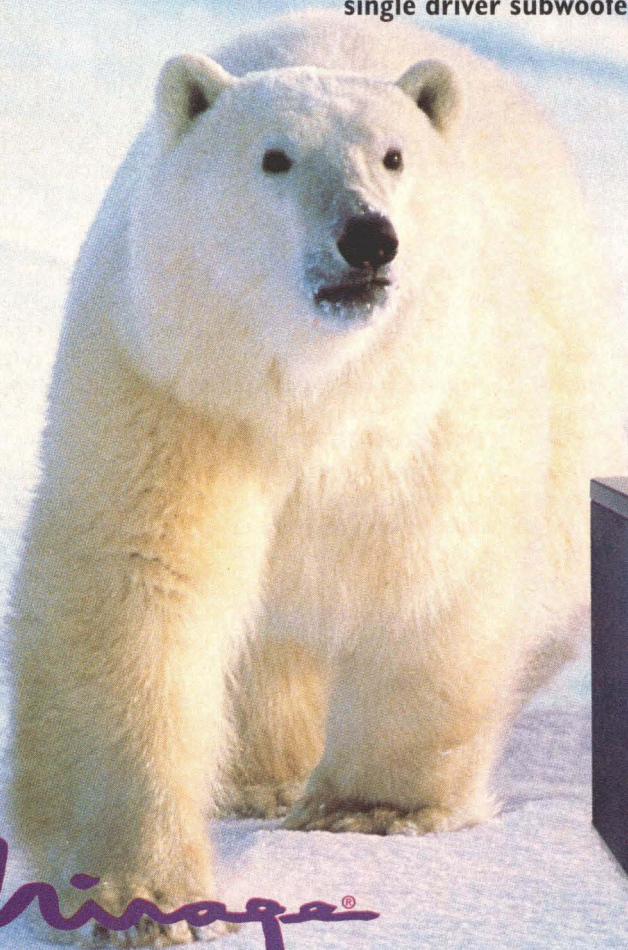
TO BUILD THE WORLD'S BEST SUBWOOFERS, WE WENT BIPOLAR. AGAIN.

At Mirage, we've proven the sonic superiority of Bipolar loudspeaker design. Now we're proving it once again with our powerful new line of Bipolar subwoofers.

From the compact 100-watt BPS-100 to the flagship 250-watt BPSS-210, all four feature dual bass drivers in a unique Bipolar configuration. This eliminates transfer of low frequency energy to the floor, a major source of coloration in single driver subwoofers.

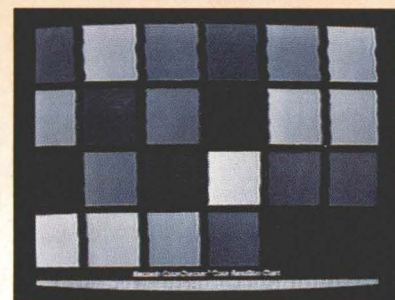
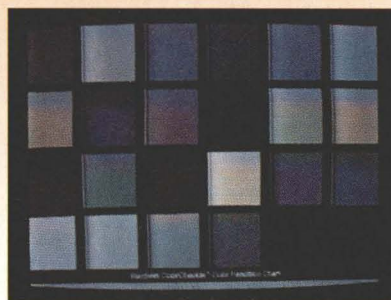
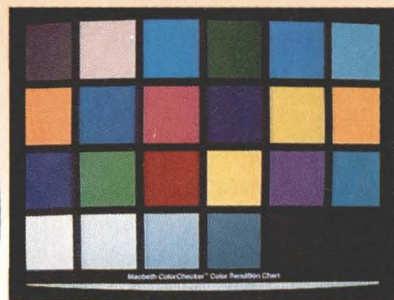
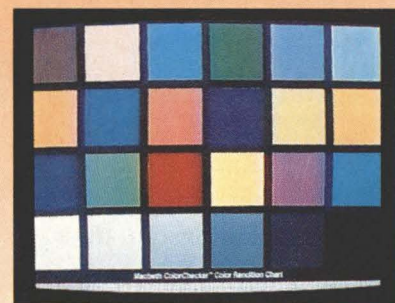
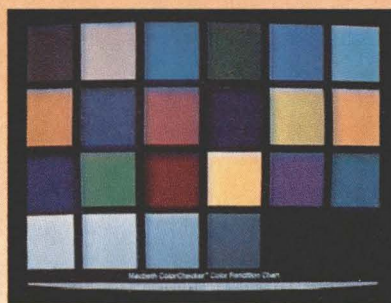
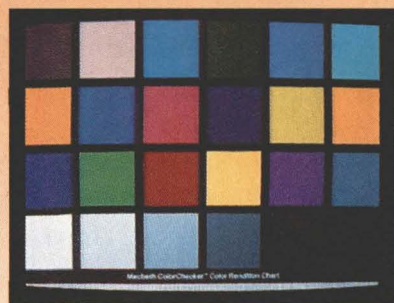
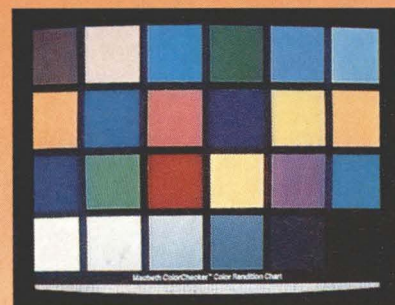
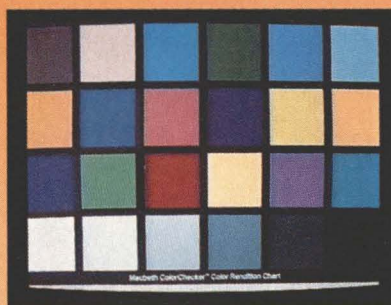
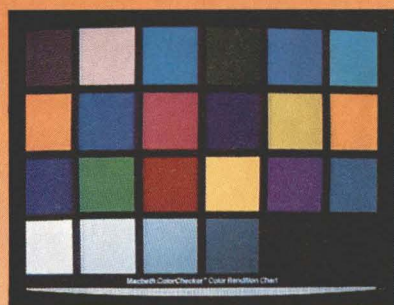
All feature our new "Auto-On" circuitry. And, for the ultimate in outboard control convenience, combine any of them with one of our LFX-Series of external crossovers.

From the original Bipolar explorers comes the world's first complete line of Bipolar subwoofers, the ideal means of adding dramatic new depth to both audio and home theater systems. Track one down and explore the possibilities yourself.



Mirage®

THE ORIGINAL BIPOLAR LOUDSPEAKER™ 3641 McNicoll Avenue, Scarborough, Ontario, Canada M1X 1G5 (416)321-1800 Fax (416)321-1500
CIRCLE NO. 2 ON READER SERVICE CARD



GENERATION EXCELLENT

Even After 20 Generations,
DV Format Tapes Still Look Pristine

DO YOU COPY? IF THE ANSWER IS YES, AND THE TOOLS you work with are a camcorder or two and a dubbing VCR, the introduction of the Digital Video (DV) format last October ["DV Nation," November 1995] probably made your personal highlight film for 1995. Before DV, home-video recording was limited by the idiosyncrasies of analog videotape. Chief among them is generation loss, the deterioration of picture quality that occurs each time a videotape is copied or edited. It's been the Achilles' heel of the editing process ever since videotape was introduced in the '60s. Pro video has migrated to digital over the last few years. Now DV, which has arrived in the form of high-end digital camcorders, promises to eliminate generation loss for home-video enthusiasts.

To test DV's theoretical immutability, we set up a challenge match, pitting the new digital format against the reigning co-champions of home-video recording: S-VHS and Hi8. Tech editor Lance Braithwaite and I made three identical recordings of a series of test patterns in each format and then copied them over and over again. The results are eye-opening.

All impatient types need to know is that after three generations or so the images from both analog formats showed significant deterioration. No surprise there. DV images, however, were all but identical to the original after an amazing 20 generations. For the terminally curious, the long form, complete with nitty-gritty details, follows.

THE PROCEDURE

We recorded a series of test patterns on a 6-minute segment of tape in each format (DV, Hi8, and S-VHS). To maintain the highest measure of control, we shot 4 minutes of video with Sony's DCR-VX1000 DV camcorder ["VIDEO Test," November 1995] and used its camera section to feed both an S-VHS VCR and a Hi8 VCR. A Sony LC-OFCS S-Video cable fed the analog signal to both of these machines.

Our test images consisted of a Macbeth ColorChecker color-rendition chart, a standard video-color-bar test chart, a resolution test pattern, some colorful stuffed animals, and a moving hand. The Macbeth chart is superior to a standard color-bar test pattern because the former's colors were designed for use with reflected light, and there's plenty of reflected light present when a camcorder's CCD picks up an image in a real-world shooting situation. In addition,

ON THE INSIDE



BAR EXAM: Macbeth meets DV (left column, first, third, and tenth generations shown top to bottom), Hi8 (middle), S-VHS (right).

tion, each color on the Macbeth chart is painted on the chart, rather than printed, for certified accuracy.

The last 2 minutes of our test video consisted of electronically generated test patterns. These included a 50-IRE gray luminance test and a full-field red chroma test. These signals were used to check signal-to-noise ratios.

To perform our DV dubs, we used Sony DVM60 ME digital videotape and made our copies with Sony's DCR-VX1000 and their step-down DV cam, the DCR-VX700. We recorded our S-VHS test using Fuji H471S S-VHS tape and shuttled signals between JVC's HR-S7200U VCR ["VIDEO Test," page 90] and Sony's SLV-R5, which Lance says is one of his all-time-favorite S-VHS VCRs. The Hi8 format was tested using Sony E6-120 Metal E tape and two of Sony's excellent EV-S5000 Hi8 VCRs.

When we were done shooting, we ended up with two tapes in each format. One tape contained the odd generations (first, third, fifth, and so on), the other the even generations (second, fourth, sixth, and so on). We viewed the tapes on JVC's TM-1400SU 14-inch professional video monitor.

TALE OF THE TAPES

The most astounding moment came when we finished our 20th-generation DV dub and compared it to the first generation. The tale of the DV dubs is really a story about what *didn't* happen: We began with an unparalleled horizontal resolution of 500 lines, and there was almost no observable degradation over the course of 20 generations. The only difference we could see—and it was extremely subtle—was a very slight drop in the luminance level as the generations progressed.

Lance suspects that the luminance drop might be attributable to an accumulation of lost data. With so many megabytes being copied over and over again (at 25 Mbps, our 6-minute test used up just over 1 GB of data), a few bits are bound to get lost along the way.

Error accumulation is caused by tape dropouts. But the DV format includes error correction. In any case, it bears

repeating that the luminance drop was extremely subtle, even at the 20th generation. To put this in perspective, there was more loss between the first and second generations of both the S-VHS and Hi8 formats than between DV's first and 20th generations.

As we've stated, generation loss was not at all subtle with the two analog formats. Our first-generation S-VHS recording showed the format at its best, with excellent 400-line horizontal resolution and accurate colors. A bit of vis-

There was almost no observable degradation over the course of 20 generations with our DV tape.

ible picture noise reminded us that we were in fact using tape, but all-around performance was very solid.

The second generation of S-VHS also looked quite good. The red and magenta color blocks exhibited a bit more noise, and horizontal resolution dropped slightly, to about 390 lines. By the third generation, however, S-VHS began to show signs of strain: Vertical edges became a bit wavy. Colors appeared accurate, but began to smear across borders. The red field began to look even noisier, and a noticeable shift toward magenta appeared at the top of the frame. Horizontal resolution was about 375 lines. This was the last generation of S-VHS that we could still admire. From the fourth generation on, things progressively fell apart.

Hi8 suffered a similar fate, but things degraded more rapidly in both the resolution and color-accuracy departments. Picture stability held up better over the long haul, though this was due to the Sony VCR's inclusion of a time-base corrector and wasn't a benefit inherent in the format.

First-generation Hi8 performance equaled S-VHS, with more than 400 lines of horizontal resolution. The second generation looked very good as well, with horizontal resolution clocking in at approximately 350 lines. By the third generation, however, the picture became slightly jittery and shifted

left to right at a very rapid rate. The top and left edges of each color box showed distortion, and the image was inferior to that of S-VHS. Horizontal resolution fell to about 300 lines.

Vertical lines grew even more jagged in the fourth Hi8 generation. But the format still outperformed S-VHS in this regard. In any event, severe distortion in the top of each color box was evident. As with S-VHS, the situation quickly deteriorated as we worked our way to the 10th generation.

NO MATTER HOW YOU FEEL ABOUT THE tradeoffs in generation loss imposed by the Hi8 and Super-VHS formats, DV is clearly in a separate league. As far as home-video editing is concerned, DV is no evolutionary improvement. It's a genuine revolution.

Though we didn't take DV to the limit, after 20 generations we felt we'd seen enough. Experience with professional digital-video formats indicates that there shouldn't be any appreciable loss even with 100 generations, and everything we saw convinces us that DV will prove just as robust.

We also didn't attempt to "chew up" a DV tape by repeatedly pausing, rewinding, and stopping over the same section of tape, as might happen during a grueling editing session. The tape, which is just 0.25 inch wide, does seem fragile. A prudent course when editing with DV would be to create a backup copy just in case problems arise; our test indicates, of course, that a second-generation backup will be functionally identical to the original.

In any case, DV represents a truly exciting breakthrough in home-video editing. This level of quality used to cost as much as \$25,000. DV brings digital editing down to earth, relatively speaking. Two DV camcorders will set you back from about \$6,000 to \$8,000 total, depending on which models you choose, and these prices are sure to drop. And DV VCRs, which will arrive as soon as tiresome copyright issues are resolved, are sure to cost less than DV camcorders.

Even today, however, DV represents a real bargain. For low-budget producers, DV proves that "broadcast-quality" video can be achieved with consumer gear—even with gratuitous dubbing or aggressive editing.

—Cliff Roth



◀ beamed in

Tape playback with Hitachi's VMH81A Hi8 camcorder (\$2,099) is simplified via Optical Link technology, which uses a standalone infrared receiver and eliminates the need for connecting cables; video and audio signals are literally beamed from the cam to a TV or VCR. The 81A features a 0.33-inch CCD image sensor, a color viewfinder, electronic image stabilization, 12X optical, 24X digital, and 1.5X instant zoom, and a remote. *Circle 120 on reader service card*

head games ▶

Sunpak's AP-200W auto pan/tilt head (\$280) offers hands-free camcorder control via an infrared remote. The unit, which measures 4.3 x 3.7 x 5.7 inches (h/w/d) and weighs 15.2 ounces, can pan a full 90 degrees at a maximum speed of 8 degrees per second and can tilt up and down by 10 degrees at 3 degrees per second. The remote operates zoom and record/pause functions on many late-model cams. *Circle 121 on reader service card*



◀ flipped out

The GR-SV7 S-VHS cam (\$1,900) is the latest JVC model with an LCD screen. The flip-up monitor measures 4 inches diagonally and can be moved to various positions. Features include a 0.33-inch CCD image sensor, Hi-Fi stereo sound, 10X optical and 100X digital zoom, and digital image stabilization. Special effects such as digital fades and wipes, on-screen displays, and a wireless remote round out the package. *Circle 122 on reader service card*

stable marriage ▶

Bogen's Model 3169 tripod (\$190) weds the manufacturer's 3001 tripod legs with their 3130 micro fluid head. The 3169 weighs 8 pounds, extends to a maximum elevation of nearly 60 inches, and folds down to a compact 20.5-inch length. The legs feature three click-stop spread angles and sure-grip lever locks. The head has a quick-release plate, 360-degree panning, and 90-degree tilting. An optional dolly (Model 3056, \$144) is available. *Circle 123 on reader service card*



Acurus Rated Number One

ACURUS vs THEM

In a twelve amplifier comparison test Video Magazine ranked the Acurus A150 amplifier number one. The Acurus received an A grade in both Sound Quality and Construction! "More importantly, this amp delivered *tons* of punch—significantly more than I expected from a '150-watt' amp. The sound had outstanding dynamic outlines and impact, trap drums and big bass events were impressively rendered. There was also an open, highly detailed, but never harsh character to the sound, with notable depth and 'space'." *Dan Kumin, Video Magazine*

To prove to yourself that the U.S. made Acurus is superior to the foreign made Sony, Rotel, NAD, Pioneer, Parasound, Carver, Adcom, etc. go to your nearest Acurus dealer for a demonstration.



M O N D I A L D E S I G N S L I M I T E D

20 Livingstone Ave., Dobbs Ferry, NY 10522 • 914-693-8008 • Fax 914-693-7199

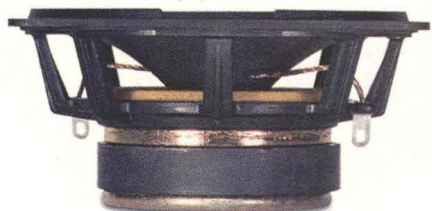
CIRCLE NO. 43 ON READER SERVICE CARD

"Natural Sounding, Excellent, Outstanding." Will the Flattery Ever Cease?



The Canton philosophy: Free from all coloration, speakers are to reproduce music as authentically as possible, calling no attention to themselves. Rather, they must serve simply as windows through which music passes in a pure and unadulterated state. At Canton we call this "Die Reine Musik." Pure Music.

With this uncompromising quest for neutral, uncolored sound, faithful to the original musical experience, our R&D teams design these review-winning speakers by first creating computerized models and prototypes in our laboratories. These advanced systems are measured, analyzed and retested in our anechoic chamber—only to be scrutinized further with the ultimate test equipment, the human ear.



We then design, engineer and manufacture, each voice coil, driver and crossover in-house with Canton's world-renowned craftsmanship.

Small teams of highly trained production workers meticulously hand assemble each and every speaker, which is then 100% tested before receiving "Canton Quality Certification."

The end result? Speakers that win rave reviews for outstanding sound. Speakers we're proud to have bear the Canton name. And most importantly—speakers which heighten the audio and video experience for the listener by producing pure, neutral, uncolored sound.

After all, that's what HiFi is all about.

Here's just a sample of what reviewers around the world have to say about Canton, Germany's leading speaker manufacturer, and the quality loudspeakers we produce:

AV 950 "How important a good center speaker is for spatial sound is shown by the AV 950: its outstanding speech reproduction and bass that effortlessly extends down to 50 Hz created precise spatial stratification of the three front channels attained by no other Surround Sound speaker among the test candidates... Stereo Recommendation: Excellent."

—Stereo Magazine

"Coherent, natural acoustic image with powerful bass... Very suitable for HiFi purposes too. Sound: Very good. Top-of-the-line Class II, Reference."

—Stereoplay Magazine

AV 500 "The loudspeaker features typically consummate Canton craftsmanship..."

The AV 500 sounds natural and free of coloration... Sound: Sehr Gut. Craftsmanship: Sehr gut. Rating: Sehr gut.

—HiFi Test Magazine

CANTON



For information on the entire line of Canton home & automotive loudspeakers, pick up our 50+ page brochure available free from your audio/video specialist.

Also available: an interactive CD featuring introductory information on the company, which can be viewed with any CD-i player - plus selectable audio/video sequences in Dolby Surround which you can audition on various Canton home theater systems at your local Canton Dealer.

Canton Electronics Corporation
915 Washington Avenue S. • Minneapolis, MN 55415-1245
Telephone 1-800-328-8040 ext. 400 • Fax 612/338-8129
email: CantonUSA@aol.com • In Canada call 905/567-1920

CIRCLE NO. 93 ON READER SERVICE CARD



VIDEOTEST



In Control

Canon's ES5000 offers breakthrough control over basic functions

**TEST
827**

CAMCORDER TECHNOLOGY IS DOING A PRETTY GOOD impression of Superman lately, leaping several tall buildings in terms of convenience and performance.

We've moved from LCD viewscreens to digital recording with little Kryptonite in sight. And though Eye Control, which debuts on Canon's new ES5000 Hi8 cam (\$2,200), isn't X-ray vision, it represents a startling departure in basic operation.

◆ Compact and handsome, the ES5000 has lots of high-end

features—20X optical and 40X digital zoom, optical image stabilization, manual controls, a lithium-ion battery, a color viewfinder, and special effects. But Eye Control is the real draw: It lets you focus, set exposure, and direct camcorder functions simply by gazing into the finder.

Eye Control is even more radical than the FlexiZone focus/exposure system in Canon's ES2000 ["VIDEO Test," October 1995], and it's as smart as it is easy to set up. It eliminates arbitrary focus-zone and fuzzy-logic confusion by actually "learning" about your eyes. The technology

is fascinating: Eye Control emits an invisible beam through the cam's viewfinder, and the beam reflects off of your cornea. It then interprets the angle of reflection and moves the white autofocus/autoexposure frame you see in the finder to the subject of your gaze. It even works if you're wearing eyeglasses (though not, Canon warns, those rad cyclists' shades), and the more often you calibrate it, the more accurate the system becomes.

The calibration is a quick startup procedure, and the cam steps you through it. You simply turn on the

ES5000, turn the main power/mode wheel to CAL, look into the color viewfinder, and follow three on-screen prompts; if it hasn't calibrated itself properly, it'll tell you to try again until it gets a usable reading. Before you can say *the eyes have it*, you're in control.

The Eye Control system has three calibration memories. There are two permanent ones, for you and a spouse or child. And there's a "guest" memory that holds calibration settings for the most recent user; multiple guests can use the ES5000, therefore, with settings for the current guest supplanting those for a previous one. If you want to ease the future-shock factor, you can simply turn Eye Control off; in this case, the ES5000 works just like any other well designed high-end cam.

"Well designed" is an apt description, as this is a beautiful machine. Subtly colored in silver and black, and Ferrari-like in its sleek lines and precise integration of form and func-

tion, the ES5000 is extremely light (1.7 pounds), very small (4.1 x 4 x 7 inches [h/w/d]), and very comfortable to hold and carry. It's probably the best Hi8 cam out there in this regard. The small BP-911 lithium-ion battery slips into the lower-left side of the body, just below the viewfinder; in normal use, the battery lasts about 80 minutes. The 5000's controls are easy to use, and those for playback and menu navigation (located under a solid, top-mounted flip-up panel) are well marked and placed.

Different shooting modes are on hand for use with or without Eye Control. There's a fully automated EASY RECORDING mode for point-and-shooting, an AUTO mode that allows for select adjustments to be made manually, and four exposure presets (SPORTS, PORTRAIT, SAND & SNOW, and LOW LIGHT) for specific situations. Manual focus and exposure thumbwheels located in the cam's lower front lock in a reading when pushed; at that point, turning the wheels lets you fine-tune the respective function. The menu system offers white-balance and shutter control ($\frac{1}{60}$, $\frac{1}{100}$, $\frac{1}{250}$, $\frac{1}{500}$, $\frac{1}{1,000}$, $\frac{1}{2,000}$, $\frac{1}{4,000}$, $\frac{1}{10,000}$) in addition to other ancillary functions, including the microphone windscreen, on/off control for the tally light, and the remote sensor.

The 20X optical zoom is currently the largest the industry has to offer. When you've got the digital-mode switch set to 40X, the digital zoom kicks in at the

end of the optical zoom; the optical-to-digital transition was handled smoothly. The image does degrade with the extreme zoom position, but all big zooms suffer this to some degree.

Like other high-end Canon cams, the ES5000 is equipped with an optical stabilizer, a necessary complement for the big 40X digital zoom. The stabilizer is a piece of work: Even at the outer limits of the zoom, it provided a large measure of stability and smoothness. And the stabilizer didn't degrade image quality in the slightest, a blessing since you can't defeat it in EASY RECORDING mode.

Digital effects are on hand for spicing up your videos. CLOSE-UP (2X magnification) digitally enlarges the central part of the image—unless you use it with Eye Control, in which case it enlarges whatever is within the white focus/exposure frame. STROBE is similar to a slow-motion effect. FREEZE gives you a still image. ART is a solarization effect. MOSAIC breaks the image into square elements. And 16:9 produces images in the 16:9 format (images look horizontally compressed on a conventional, non-widescreen TV).

Almost lost in this mix of excellent features is the fact that the ES5000 lets you perform sophisticated in-camera transitions. In addition to a standard to-black fader, OVERLAP is a dissolve effect from one scene to the next. SCROLL is like a horizontal wipe, replacing the first scene with the next

scene, which moves into the frame from the left. WIPE looks like sliding black doors moving out from the center, revealing your subject. And ZOOM FADE triggers a small square that's filled with your subject in the center of a black field, which then expands, moving toward you, to normal size; you can also reverse this effect by pushing STANDBY. Add these transition effects to the aforementioned digital effects and you've got much of the va-

BY THE NUMBERS

Measurements by Berger-Braithwaite Labs

Horizontal resolution: camera, 450 lines; EVF, 360 lines; VCR, 370 lines

Playback picture S/N (at analog outputs): unweighted luminance, 45.8 dB; weighted luminance, 48.2 dB; unweighted video, 43.8 dB; weighted video, 49.8 dB; chroma AM, 44.8 dB; chroma PM, 44.2 dB

Minimum illumination: 15.3 lux for 50 IRE

Audio frequency response: 20–6,000 Hz +0, -3 dB; -8.1 dB at 20,000 Hz

Audio dynamic range: 68.2 dB

Audio THD plus noise: 0.3%

riety offered by one-stop production powerhouses like JVC's GR-SZ9 ["VIDEO Test," September 1995].

Effects can be accessed automatically (with Eye Control) or manually. In either case, you start by sliding the digital-mode switch to the EFFECT setting. (Digital effects can't be used in combination with the digital zoom or in EASY RECORDING mode.) Then you press the SELECT switch to choose which effect you'd like. Finally, you either gaze at the word or icon representing the effect (with Eye Control) or push the on/off button that's located beside SELECT to trigger the effect (with manual operation). This process is better than what you get with other cams, which make you stop shooting and cycle through the effects options until you find one you like; with the ES5000, you have direct access to any effect and can access it precisely when you want it *while recording*.

Other features include a 0.25-inch, 410,000-pixel CCD image sensor, a 0.7-inch, 180,000-pixel electronic color finder, an f1.6–f3.6 lens, a titler, a 24-hour world-time-zone clock, record search/review functions, and date/time controls. The ES5000 has an S-Video jack, a combination RCA in/out jack for stereo audio/video playback and

THE SHORT FORM

CANON ES5000

Component type: Hi8 camcorder

Price: \$2,200

Target: Serious videographers

KEY FEATURES

■ Eye Control operation of focus, exposure, and basic functions ■ Can be calibrated for each user's eye ■ Three calibration memories ■ Automatic and manual shooting modes ■ 11 digital effects ■ Accommodates sophisticated in-camera transitions ■ f1.6–f3.6 lens ■ 20X optical, 40X digital zoom ■ Optical image stabilization ■ Weighs 1.7 pounds

SUMMARY

■ A beautiful machine ■ Extremely comfortable to hold and carry ■ Eye Control operation of focus and exposure isn't quite in sync with the workings of the eye ■ Eye Control operation of effects and basic functions is ingenious and uncommonly effective ■ The industry's largest optical zoom ■ Above-average picture performance ■ Canon has given us a glimpse of the future

Circle 124 on reader service card

recording, and a Remote-L (LANC) jack and edit setting (accessed through the menu). Jacks for an external mic and headphones are supplied. There's also a bilingual soundtrack-playback option, for tapes that feature separate language tracks.

THE VERDICT ON EYE CONTROL? I WAS amazed at how accurately the ES5000 could follow my eye movements after a single calibration, but it took patience and discipline to get the knack of its focus/exposure functions. The movement of the white control frame reveals just how the human eye looks at things: The frame darts around the finder somewhat erratically, scanning back and forth between different parts of an image. I had a tendency to concentrate too much on the Eye Control frame or to follow it rather than the subject.

Canon anticipated this, and the ES5000's owner's manual advises users to concentrate on the subject, since the frame will follow along naturally. A menu option lets you turn off the white indicator frame, while Eye Control remains on-line. You also have the option of locking in a particular focus/exposure position with the FRAME LOCK feature.

I found that you need to look at your subject for at least 2 seconds before Eye Control will react. Canon designed the system this way to prevent roving-eye focus problems. Practically speaking, however, I had to gaze at subjects for longer than 2 seconds: I had to look at one long enough to get a fix, then continue looking at it to keep it in focus; otherwise, the recording showed almost constant focus hunting. In a nutshell, the periods of "static looking" required for the system to function optimally are longer than is natural for the eye. The result is eye fatigue or focusing that constantly fluctuates. The system became a bit easier to use over time, but the basic discrepancy remained. And if you use FRAME LOCK to freeze the focus/exposure zone (to give yourself a rest), you lose Eye Control over focus and exposure.

On the other hand, Eye Control worked flawlessly when I used it to control other operations: I really liked being able to work with the various effects, record and pause on/off, date and title functions, white balance, record

search/review, and more just by looking at a word or icon in the finder. Using the system in this fashion doesn't require the same constant concentration—after you've chosen the effect or function you'd like to use (with the SELECT or FRAME LOCK button), its word or icon appears in the finder, and all you have to do is look at it for a couple of seconds to access it. Stare at the word or icon again and the effect or function is defeated. It just works incredibly well—there's less fumbling

There's simply less fumbling for buttons on the cam's body and more getting what you want on tape.

for buttons on the cam's body and more getting what you want on tape.

Picture performance was a bit better than average for Hi8. Tech editor Lance Braithwaite measured 370 lines of horizontal resolution, 360 for the finder. Our test sample gave the image somewhat of a red shift. And when shooting in bright outdoor light or near inside light sources, the brightest image areas were often washed out unless the exposure was adjusted manually. As noted in our review of the ES2000, the use of a neutral-density filter would help here. Audio performance was about average for the Hi8 format; the onboard mic picked up next to no tape-transport noise.

THE ES5000 COMBINES A HOST OF HIGH-end features in a beautiful, tightly integrated package. While the focus/exposure functions of this first generation of Eye Control aren't absolutely in sync with the natural workings of the human eye, it's a great technology that deserves all of the resources Canon can throw at it. And Eye Control is a flat-out winner when it comes to selecting effects and other functions; in this, it may change the face of videography. This system alone makes the ES5000 a force to be reckoned with, and there's much more on this cam's plate. Canon has done a super job, again providing us with a glimpse of things to come. ■

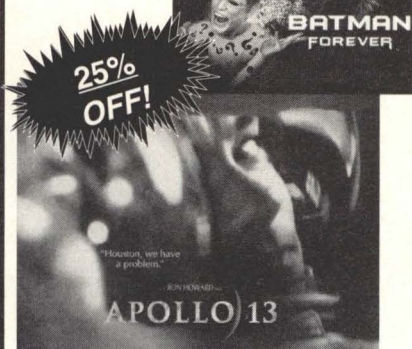
NOW on

LaserDisc

BATMAN FOREVER

&

APOLLO 13



and 20% off Other Top LaserDisc titles...

**Pulp Fiction • Star Trek Generations
Judge Dredd • Clueless
Mortal Kombat
Die Hard With A Vengeance
Crimson Tide • Species • Congo
While You Were Sleeping
Casper • Cinderella
The Santa Clause • Forrest Gump
The Lion King • Outbreak •
Interview With The Vampire**

Mention *this Ad* and get a **20%** discount off the Suggested Retail Price on the Titles listed above. (Offer expires 3/31/1996)

Call for our **FREE** Monthly Laserdisc Catalog! Hundreds of New and Recent Releases. All, **at least, 15% OFF S.R.P.!**

PLUS...



Delivery Only \$3.75 per Order*!

1 or 100 discs - you pay only \$3.75! *Orders can include "Pre-orders" and "Back-orders!" (Continental U.S. shipments only - certain areas and shipments over 5-lbs. may require an extra business day)

Every Laserdisc title available at up to 40% OFF!



Laserdisc Fan Club, Inc.
1925 E Dominguez St
Long Beach, CA 90810

(800) 801-DISC(3472)
(mention Source Code: V16)
FAX (310) 952-3000

Open Monday - Saturday

For your **FREE** Laserdisc Catalog, please complete and mail the coupon below:

Name: _____

Address: _____

City, State, Zip Code: _____



VIDEOTEST



Vision Quest

**Picture this:
JVC's S-VHS
HR-S7200U**

**TEST
828**

DESPITE THE OBVIOUS PICTURE-QUALITY ADVANTAGE IT lords over VHS, the S-VHS sub-format has never really caught on with movie watchers. We can attribute this to the fact that precious few prerecorded movies have been released in this semi-compatible format. Even so, home-theater buffs—and anyone with a big-screen TV—can appreciate the improved picture quality of S-VHS when taping shows off the air or from cable or satellite TV. The difference lies in resolution:

S-VHS VCRs can record and play back with about 400 lines of horizontal resolution, while regular VHS machines typically weigh in at about 240 lines. Many S-VHS VCRs also add editing features that camcorder enthusiasts can use to create smooth, high-quality videos. JVC's HR-S7200U is just such a machine.

The HR-S7200U (\$1,050) boasts the S-VHS format's picture-quality bonus, VCR Plus+ programming with cable-box control, and a number of useful editing features, including terrific jog/shuttle controls. The VCR also offers flying erase heads as well

as 19-micron record/play heads, which are said to improve picture quality at the EP speed. The timer is of the eight-event/365-day variety, and there's a one-touch recording function. The commercial-skip feature fast forwards a tape on playback by 30-second increments for up to 2 minutes. And there's Dynamic Contrast and Video Stabilizer circuitry, both of which are accessed by front-panel buttons.

The 7200 has an amber display, a purple-tinted metal finish, and rather tacky fake-wood sidepanels that, fortunately, look black from a distance.

The display dims when power is turned off. Besides time and channel, the display also indicates operating mode, elapsed time (in hours, minutes, and seconds), time remaining, speed, and audio recording levels, which are indicated by two horizontal amber-and-red VU meters. Unlike some VCRs, the 7200 isn't equipped to set its clock automatically; clock setting is a generally painless drill, however.

A flip-down panel in the front panel's bottom-left corner conceals gold-plated A/V input jacks. The MENU button lets you navigate VCR setup routines without the supplied remote control. The on-screen menus also let you select which audio tracks you want to hear: Hi-Fi, normal (linear), or a mix. This arrangement may be cumbersome if you're doing extensive editing and need to change this setting frequently. Unlike models intended for semi-pro editing, the 7200 lacks a headphone jack. It does have a recording level adjustment that

works with those VU meters, but, again, you can only access it via the on-screen menus, and it only controls Hi-Fi recording levels.

The jog/shuttle controls, which are duplicated on the remote, include a true jog dial that has a great feel; it has little detents, allowing you to move a tape along frame by frame at your own pace. The shuttle ring offers a good variety of slow-motion and rapid-search speeds.

The 7200 has almost all of the raw

BY THE NUMBERS

Measurements by Berger-Braithwaite Labs

Horizontal resolution: S-VHS, 400 lines; VHS, 240 lines

Picture S/N: unweighted luminance, 43.6 dB (SP), 45.2 dB (EP); weighted luminance, 50.8 dB (SP), 50.6 dB (EP); unweighted video, 41.8 dB (SP), 41.4 dB (EP); weighted video, 47.3 dB (SP), 47.4 dB (EP); chroma AM, 49.4 dB (SP), 45.5 dB (EP); chroma PM, 49.4 dB (SP), 45.3 dB (EP)

Audio frequency response: Hi-Fi, 20–12,500 Hz +0, -3 dB, -36.3 dB at 20,000 Hz; linear (-3 dB), 75–10,000 Hz (SP); 75–4,000 Hz (EP)

Dynamic range: 83.4 dB

Linear audio S/N: 41.7 dB

Total harmonic distortion plus noise:

Hi-Fi, 0.3%; linear, 0.8%

editing power you could ask for, including the ability to perform video-only, audio-only, and audio-plus-video insert edits. But it does lack some of the extras you often get with more expensive semi-pro and industrial gear, such as a serial-port remote-control jack and time code.

If you also own another compatible VCR or camcorder, you can take advantage of a simple built-in edit controller that JVC calls RA (random assemble) Edit—it lets you choose up to eight scenes on a tape, select start and stop points, and automatically copy them onto another tape. And you can rearrange the sequence of these scenes, which explains the presence of “random” in the feature’s name. The system, which is also available on some JVC camcorders, is accurate to about a half-second and requires at least 2 seconds of spacing between all selected edit points.

Compatibility is a key issue, though: The system only works with JVC VCRs and cams that have a remote-pause edit-control jack. To expand RA

Edit’s horizons, JVC offers an infrared remote-control adaptor (RM-V403U; \$30) that can trigger the record, play, and pause functions of other VCRs. Note that when you use RA Edit, the 7200 has to serve as the source, or playback, deck in the editing system, while the other VCR or cam serves as the recorder. In this scenario, the 7200’s other editing features become

irrelevant, since audio and video dubbing always take place on the recorder side of an editing system. Also note that RA Edit has no provision for automated insert editing. In addition, RA Edit uses the same memory as the VCR’s timer, so if you have, say, three programs set in the 7200’s timer, you’ll be limited to five scenes in RA Edit.

More typical usage will probably



AZDEN QUALITY SOUND LETS YOU GET THE WHOLE PICTURE.

Your camcorder’s built-in microphone picks up sounds from all directions, including those you don’t want. When shooting from a distance you can’t record your subject’s voice clearly. Azden, the leader in professional microphones for videography, offers a full range of options to make your sound as good as your pictures.

“PRO” series wireless microphones:

- Powerful VHF professional wireless systems with a range of over 300 feet.
- 2 Switchable frequencies for noise-free performance.
- Belt-pack transmitters (WLX, WMS).
- Miniature receivers with supplied shoe mount and velcro.

WMS-PRO: Comes with 2 mics (lapel and handheld) which plug into the transmitter.

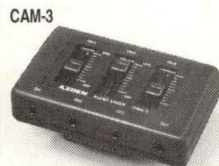
WHX-PRO: Wire-free handheld mic with built-in transmitter.

WLX-PRO: Lapel microphone system.

CAM-3: A mini 3 channel mixer for recording sound from 3 add-on-mics, while you’re shooting. Only 2-1/8" x 3-1/4" it can be attached to your camera or clipped to the handstrap. Needs no batteries. Cables included.

HS-7V: Headset with boom mic for adding narration as you shoot. Also use it to monitor sound you’re recording.

ECZ-990: A 7" long directional mic. Zoom in on your subject’s voice, reducing side noises. Range 35-40 feet.



147 New Hyde Park Road, Franklin Square, NY 11010
(516) 328-7500 FAX (516) 328-7506

Distributed in Canada by GENTEC

CIRCLE NO. 55 ON READER SERVICE CARD

center on manual, or pause-control, editing. In this scenario, a camcorder can serve as the source and the 7200 will be the recorder. Two front-panel buttons—INSERT and AUDIO DUB—control the action. The former inserts new pictures and Hi-Fi sound, while the latter records a new mono linear track, leaving the Hi-Fi stereo intact. Pressing INSERT and then AUDIO DUB selects an A/V insert edit, in which everything but the control track is replaced. To end an edit, you simply pause the tape; alternatively, you can end an edit automatically using the 0:00:00 counter memory system.

Note that the RA Edit jack can serve double duty in a system that includes A/V Compu-Link products from JVC. Link the 7200 with an A/V Compu-Link TV, for example, and inserting a videocassette will automatically power up the TV and set it to the appropriate video input. You can determine the jack's role by using an option in the basic setup menu.

The rear panel has a jack for the infrared cable-box controller, A/V inputs and outputs, and S-Video inputs and outputs. The front auxiliary input is selected via the channel selector, and the front-panel jacks automatically supersede the rear jacks when a signal is detected.

The multibrand remote is well laid out and comfortable, but it gets demerits for its lack of editing controls. On

the plus side, the BACKLIGHT button illuminates the six motion-control buttons and the DISPLAY button. The remote's jog/shuttle system is active only when its adjacent button is pressed; a red light tells you that it's active.

Next-Function Memory also makes an appearance on the remote. It lets you tap out a series of commands in succession instead of initiating one and then having to wait until you can initiate another. Press PLAY immediately after pressing REWIND, for example, and the 7200 will finish rewinding before it enters the play mode; with other VCRs, the transport would kick out of rewind the instant you hit PLAY. Similarly, you can activate the timer or turn the power off after a tape rewinds. Rewind time, by the way, is excellent: At 1:45, it's one of the fastest VCRs around.

The remote's multibrand capability extends to TVs and cable boxes, but it's a bit light in terms of capacity: Just 10 brands of TVs and 12 brands of cable boxes are listed as compatible in the owner's manual. The VCR's ability to control cable boxes for time-shifting is much more flexible—the manual indicates that it can boss around 43 different brands of cable boxes.

Picture quality was very good for the S-VHS sub-format and superb when compared to ordinary VHS decks. The difference in picture detail is immediately apparent on virtually any big-screen TV—the hair on actors' heads,

the leaves in a tree, patterns and textures in a variety of clothing, and many other fine details are much, much clearer. I also made a copy of Robert Altman's *Ready to Wear*, which was showing on DSS pay-per-view, and found that the recording looked almost identical to the live satellite feed, with just a bit of picture noise and instability giving the 7200 away.

I also recorded test patterns from the *A Video Standard* test laserdisc. Color bars and the multiburst test pattern looked excellent, with clearly visible detail in the 4-MHz test stripes, almost no rainbow effect in the 3.58-MHz stripes, and very clean borders between each of the color bars. This is really topnotch performance.

I wasn't too fond of the Dynamic Contrast circuit. It performed much like a sharpness booster, creating unnaturally bright white shadows along dark edges. I'd recommend leaving this circuit off; do so and the VCR will remember that setting.

Slow and still-frame special effects were very jittery, producing double images that looked like vertical ghosts. The problem occurred at SP and EP and with S-VHS and VHS tapes. Unfortunately, pressing the VIDEO STABILIZER button had no effect on these special effects. The Hi-Fi audio section was only fair, with frequency response that tapered off above 12,500 Hz, and the linear track was average.

The main difference between SP and EP recordings was in visible picture noise. Though they typically suffer from a bit more noise than their SP counterparts, S-VHS EP recordings are usually surprisingly good, and the 7200's performance here was no exception. Help may come from the 7200's 19-micron heads, which are optimized for EP speed.

JVC'S HR-S7200U IS HIGH-END AS FAR AS home-entertainment VCRs are concerned, and it inhabits the low-to-mid range for semi-pro editing. It's a natural for any big-screen TV owner who does a lot of time-shift taping or anyone with a Hi8 or S-VHS camcorder. Its editing features work well, and its picture quality is excellent. While its Hi-Fi audio performance doesn't keep up, the picture improvement tips the scale in the 7200's favor. ■

THE SHORT FORM

JVC HR-S7200U

Component type: S-VHS VCR

Price: \$1,050

Target: Time-shifting videophiles and video editors

Minimum requirements*: 27-inch TV, A/V receiver, main, center, and surround speakers

KEY FEATURES

■ 400 lines of horizontal resolution ■ VCR Plus+ programming with cable-box control ■ Jog/shuttle controls on front panel and remote ■ 19-micron record/play heads ■ Flying erase heads ■ Eight-event/365-day timer ■ Performs video-only, audio-only, and audio-plus-video insert edits ■ Commercial skip ■ Next-Function Memory ■ RA Edit function ■ A/V Compu-Link-compatible ■ Multibrand remote

SUMMARY

■ Picture quality was excellent ■ The jog dials have a great feel ■ No automatic clock setting ■ Fast rewind times ■ Hi-Fi audio was only fair ■ Almost all of the raw editing power you could ask for ■ A natural for any big-screen owner who time-shifts

Circle 125 on reader service card

**To maximize its potential*



VIDEOTEST



Suite Success

Videonics' Edit Suite is flexible, powerful, and relatively easy to use

**TEST
829**

UNTIL RECENTLY, A/B-ROLL VIDEO EDITING WAS VERY much a hit-or-miss proposition with consumer-grade equipment. Even if you had the basic components—two playback VCRs or camcorders plus one recording VCR or cam—and the video mixer required for blending two scenes or segments without time-base error, there still wasn't any inexpensive means of controlling them. If you wanted an effect like a dissolve, you had to manually cue up both players and

the recorder, rapidly take all three decks out of pause, and perform the transition on your video mixer at what you hoped was the right point. Videonics has come up with an affordable solution to this dilemma. Their Edit Suite edit controller is capable of managing up to four playback decks, a video mixer, a titler, and the recorder. And for a modest price (\$799), it lets you perform both assemble and insert edits.

To use the Edit Suite, at least two of the playback decks will need to recognize either LANC, Panasonic five-pin, RS-232, or RS-422 edit protocols. Interestingly, the recording VCR or cam doesn't have to recog-

nize one of the above protocols if all you want to do is perform assemble editing, since the Suite comes with a "wand" that facilitates control of the recorder via infrared signals—though using the wand limits the accuracy of your edits and restricts access to all of the Suite's features. Still, the accuracy of wand-assisted assemble edits (± 8 frames) is surprisingly good.

Setting up the Suite takes a little time, but it's fairly straightforward. First, you need to link your decks' edit-control jacks with those on the back of the Suite. The Suite is also capable of reading RC, VITC, or SMPTE/LTC time codes should your tapes have them; the Suite doesn't

generate time code of its own. (Though helpful, time code really isn't necessary unless you require frame-accurate edits.)

If you intend to take full advantage of the Suite's A/B-roll capabilities, you'll need to hook your edit decks' A/V inputs and outputs through a video mixer that has a GPI trigger (which, when plugged into the Suite, controls transitions and effects). There's even a second GPI trigger output on the Suite for use with an outboard titler.

Once everything is connected, you power up all of the machines and go into the configuration "tiles" on the Suite's LCD readout. You do this by using the unit's combination numeric/directional keypad and then pressing its OK key. Then you select which piece of equipment you'll be configuring—one of your player decks (designated as VCRs A through D), your record VCR (VCRR), or one of your GPI-triggered peripherals—and press OK again.

This takes you into the parameter tiles, which, for the edit decks, in-

clude an edit-protocol setting (a three-digit VCR number to distinguish the specific type of VCR you're using), what sort of time code you're using (if any), and if your deck can perform insert edits. To change the settings, you use the keypad's CHANGE key. Once you've set the parameters, you press the SETUP key to store the selections you've made. This takes you back to the first configuration tile, where you repeat the process for your other decks and GPI-triggered devices.

After you've configured your decks and made sure they're responding to the Suite's commands (by getting them to play), it's a good idea to make a few test edits so you can calibrate the system's accuracy. The ability to calibrate the Suite to your specific players and recorders is a very welcome feature. By following the instructions in the "Deck Tuning for Maximum Performance" section of the manual, and after several tries, I was able to get my editing setup to within ± 5 -frame accuracy—more than good enough for any type of editing outside of animation.

The Suite gives you the option of on-the-fly assemble editing, auto-assemble editing, or insert editing. Videonics has even incorporated a variant form of insert editing known as "split editing," which simultaneously records the audio from one player and the video from another. To take advantage of insert or split editing, your recording deck will have to have audio and video insert-edit capability, and it'll have to use one of

the edit protocols I listed earlier (the IR wand won't cut it here).

Videonics admits that there's a slight learning curve involved in using the Suite, but it's not that steep given its sophisticated capabilities. To perform a one-player cuts-only auto-assemble edit, for example, you first need to create an edit-decision list (EDL). You do this by pressing SETUP to get to the parameter tiles, arrowing down to the EDL selection, and pressing the OK key twice, which deletes an old EDL if there is one in the Suite's memory. Then you press the A key to tell the Suite which deck you want to use. This changes the menu screen to a VCR readout tile that gives your numerical location on the tape, which deck you're using, and the EDL event.

By pressing the Suite's PLAY key or nudging its jog/shuttle wheel, your player will switch on and begin playing the tape you've loaded into it. Using either the jog/shuttle wheel or the Suite's other tape-transport keys, you can navigate through the tape. When you get to the point where you want your first edit to begin, you pause the tape by either bringing the shuttle wheel up to 12 o'clock or by pressing the PAUSE key. Then you press the large, triangular IN button to select this spot as your in-point. From there you go forward, just like you did to get to this point, until you find the spot where you want the scene to end. Then you pause the tape again and press the triangular OUT button to select this as your out-point.

You'll see a numbered event tile in the Suite's LCD with the times of the in- and out-points, according to your player's time counter or time code.

To create a second edit, you'll need to create a new event tile. You do this by pressing SHIFT and A simultaneously. Then you navigate through your player's tape to find your second in-point and repeat the process.

Once you're done assembling your footage, you press the R key (located at the end of the row on top of the Suite) to select the recorder. For greater accuracy, the owner's manual recommends putting the recorder into record-pause mode, though you can leave it stopped if you have wired control over the recorder, and it'll turn on automatically. You arrow up to the start of the first event and, holding down SHIFT, press the AUTO RECORD key. The Suite will take control of your decks and perform the edits for you.

Assembling an A/B-roll edit is a bit trickier, simply because there are more elements involved. It may take you a couple of tries to get it right at first, but once you've got the hang of it you'll see it's a lot easier than doing it all manually.

Among the Suite's many excellent capabilities is its open-architecture design. If you'd like to get more accurate decks but can't afford them right now, for instance, you can use the equipment you've got with perfectly good results until you can purchase better recorders and/or players. There's even a feature that lets you program the Suite with parameters that may not have been available at the time Videonics built it.

One thing I'd like to see is the ability to create multiple EDLs. I'd also like to see a key that would delete an entire event tile. And the number of commands controlled by the numeric keypad makes using it a bit clumsy.

THESE ARE MINOR QUIBBLES, THOUGH, and Videonics has done a wonderful job overall with the Edit Suite. It's a powerful and remarkably flexible edit controller with a very reasonable price tag. Given the complexity of what it allows you to do, it's surprisingly easy to use and allows even the most casual videomaker to work up professional-looking videos. ■

THE SHORT FORM

VIDEONICS EDIT SUITE

Component type: Edit controller

Price: \$799

Target: DIY video editors

Minimum requirements*: One record and two playback components with the appropriate edit protocols

KEY FEATURES

■ Controls up to four playback decks ■ A/B-roll editor ■ Performs assemble, auto-assemble, insert, and "split" edits ■ Edit "wand" controls recorder via infrared signals ■ LCD readout ■ Open-architecture design for upgrading

SUMMARY

■ Standalone edit controller for up to four playback decks, mixer, titler, and recorder ■ Can be calibrated for specific players ■ ± 5 -frame accuracy ■ Slight learning curve ■ Powerful and remarkably flexible ■ Enables even casual videomakers to create professional-looking videos

Circle 126 on reader service card

**To maximize its potential*

JVC®

Technically Perfect. Perfectly Simple.

A Resolution You Can Keep.

The clearest picture, the best available sound, professional-style editing and dozens of features to speed up and simplify video operations. That's a lot to expect from any VCR, yet here it is. JVC's top-of-the-line HR-S7200 is the complete home video entertainment package.

Super VHS with 400+ lines of horizontal resolution delivers stunning clarity. Expressive colors and sharp contours are made possible by Digital Live Circuitry, the latest picture improvement technology that challenges the performance of even professional VCRs. This high performance lets you record high-quality satellite and cable programs* while maintaining their original quality. Super VHS also keeps its high resolution after editing, and lives up to your highest expectations when viewed on the latest high-resolution large-screen TVs. And to maximize the impact of your home theater experience, there's Hi-Fi VHS Stereo sound. All this, plus accelerated tape transport, easy-to-use editing utilities, unified remote control capabilities, and much more.

The HR-S7200 is waiting for you at your nearest JVC dealer. All you have to do is decide that you want the best there is.

HR-S7200U

Super VHS

Hi-Fi
STEREO

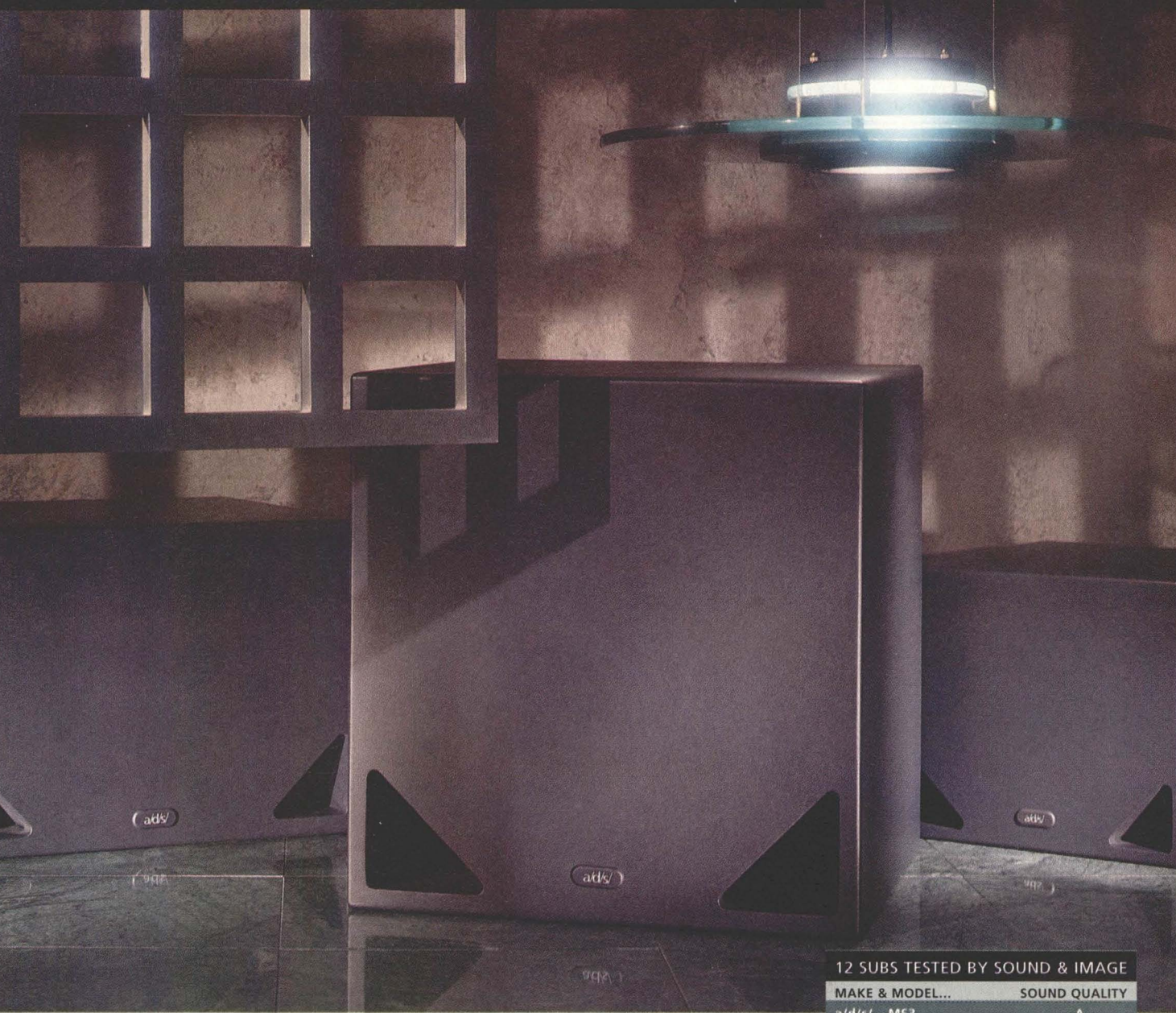


*When connected to external DSS™ Digital Satellite System or cable system.

The
Inventor of VHS

CIRCLE NO. 3 ON READER SERVICE CARD

The Best Subwoofers In The World!



Excerpted from Sound & Image Magazine, Summer 1994, "Sub-Mission." Text by Tom Nousaine. Text used with permission. For a complete test report, contact Sound & Image Magazine at 212.767.6020.

"...Sonically, the MS3 had an exceptionally full sound that was absolutely thrilling to hear."

"...This sub also added a great deal of clean and subtle depth to orchestral music that has lots of lows."

"...Everything sounded great with this sub, which went all the way down to 23 Hz in my living room ... and blasted out 104 dB SPL when playing solo."

"...A bravura performance."

—Tom Nousaine, Sound & Image Magazine

Analog and Digital Systems, Inc. One Progress Way, Wilmington, Massachusetts 01887 USA. 617.729.1140

12 SUBS TESTED BY SOUND & IMAGE

MAKE & MODEL...	SOUND QUALITY
a/d/s/ - MS3	A
Klipsch - SW-12	A
Janis - System 3A	A-
Velodyne - VA1012	B+
M&K - 90	B+
PSB - Subsonic II	B+
Triad - Thunder Silver	B+
Sonance - DL15	B
Energy - AS-180	B-
Kinergetics - 102V	B-
Infinity - SSW 10	C+
Sound Dynamics - A SUB-15	C+

a/d/s/
real music.

CIRCLE NO. 18 ON READER SERVICE CARD

SOFTWIRE

The latest and greatest on tape and disc

APOLLO 13

LUMP-IN-YOUR-THROAT HEROISM doesn't get much better treatment than the true-life events recreated in *Apollo 13* (MCA/Universal; VHS, \$23, CLV discs, \$45). Astronauts Jim Lovell, Jack Swigert, and Fred Haise (Tom Hanks, Kevin Bacon, and Bill Paxton, respectively) are trapped in the crippled tin can that was supposed to deliver them to the moon and back on a 1970 mission, but a simple mechanical



Blast off: *Apollo's* Paxton, Hanks, Bacon

failure has doomed them to an almost certain death by either suffocation or exposure. As they coast back toward Earth in their listless command module, frantic engineers at mission control in Houston—led by granite-faced Gene Kranz (Ed Harris)—try to figure out how to bring the boys safely home. Director Ron Howard brings a fresh look to standard space-movie scenes (most notably the terrific countdown and blast-off sequence), and he blends the requisite tech-speak into the drama without sacrificing pace—even if the rapid-fire astro-jargon occasionally recalls the heady Aykroyd-Ramis banter in *Ghostbusters*.) In any case, *Apollo 13* is the ultimate story of man vs. nature, and a rare space movie where the VHS tape's image-cropping doesn't handicap the home-theater experience. That's one giant step for filmkind.

—Andy Wickstrom

BATMAN FOREVER

WITH VAL KILMER TAKING OVER THE lead from Michael Keaton and Joel Schumacher replacing Tim Burton in the director's chair, I harbored some slight hope that *Batman Forever* might

pack a few surprises under its cape. But too much was at stake regarding the Batman franchise, apparently, so there are no novel additions—say, a meaningful story or a touch of humanity. Instead, *Forever* (Warner; VHS \$20, CLV discs, \$40) is what Batman movies always run the risk of being: a collection of plastic action figures moving through a chaotic landscape of explosions and collisions. You could say, of course, that it's simply a very expensive live-action cartoon. The film certainly looks beautiful—the 1.85:1 widescreen laserdisc is particularly immaculate, with a flawless picture and expansive sound (courtesy the Dolby Surround AC-3 soundtrack). Will viewers be bored into submission by the two-dimensional heroes (Kilmer, and Chris O'Donnell as Robin) and shrill villains (Tommy Lee Jones as Two-Face, Jim Carrey as The Riddler)? Or will the bravura special effects save the day? *Forever* only knows. —AW

THE STAR WARS TRILOGY

THE NEWS MAY NOT SET THE GALAXY on fire, but I'm here to report that the THX-approved *Star Wars Trilogy* videotapes (TCF; VHS, \$20 each, \$50

box) are a marvelous package. Nearly 10 years after the first home-video appearance of *Return of the Jedi*, the tapes have never looked and sounded better or been more affordable. And the same can be said for the letterboxed CLV discs (TCF/Image; \$60 each). Owners of the \$250 all-CAV box set issued in 1993 can rest assured that they still have the "ultimate" versions, but they may feel a stab of jealousy when they see the beautiful graphics and bold lettering on the CLVs' gatefold sleeves. The only extra in the VHS and CLV versions is a recent interview with series creator George Lucas conducted by critic Leonard Maltin. But the image is truly remarkable—stable, sharp-edged, and bright—while the surround sound is totally involving, quite the contrast to the erratic sound found on the *Star Wars* discs of the pre-THX era. Is picture quality as good as that of the CAV box? Rabid A-B'ers will draw their own conclusions, but an inside source told me that the CLV discs are somewhat cleaner, having benefitted ever so slightly from manufacturing improvements made since 1993. Whatever the case, this *Trilogy* is a Force to be reckoned with. —AW

Tricky read:
Forever's
Jones, Carrey



See spray: *Bad Boys*' Smith, Lawrence

FORGET PARIS

IT'S A DARING TITLE FOR A MOVIE, BUT by the end of it you only wish you could forget it. Billy Crystal directs and stars in *Forget Paris* (Columbia TriStar; VHS, priced for rental, CLV disc, \$40), a romantic comedy reminiscent of a Woody Allen film—at least one without Allen's edgy wit. Among the Allenesque trappings: The story of pro-basketball referee Mickey (Crystal) and airline rep Ellen (Debra Winger) is told in you're-not-gonna-believe-this flashbacks by a gaggle of voluble friends huddling in a New York City restaurant. (Forget that most of the action occurs in Southern California.) The table talk is spiced by borscht-belt humor and a colorful ethnic waiter, but a sense of déjà vu hovers over the cuteness factor like a bank safe dangling on a frayed rope. Not even the City of Light retains its magic, as Mickey meets Ellen and they jump through trite falling-in-love hoops with the city as their theme park. And Crystal's antics with past-and-present NBA stars, including Kareem Abdul-Jabbar, Charles Barkley, and Dan Majerle, fall flat. When the couple has its inevitable falling out over Mickey's life on the road and he righteously proclaims that his job is "what he's about," there's no room for argument . . . or interest. This battle of the sexes is ultimately an unsalvageable disappointment because Crystal has rigged it against women, presumably his target audience. How could he forget something so important? —AW



BAD BOYS

THE MOST ENTERTAINING WAY TO VIEW *Bad Boys* (Columbia TriStar; VHS, priced for rental, CLV disc, \$35) is to guess which scenes came from the script originally developed for former *Saturday Night Live* cast members Dana Carvey and Jon Lovitz and which ones were added after high-testosterone producers Don Simpson and Jerry Bruckheimer (*Top Gun*, *Beverly Hills Cop*) took over and recast Will Smith and Martin Lawrence as the leads. As Miami drug-enforcement cops, Smith and Lawrence drive around real fast, talk real raunchy, and duck explosions every 5 minutes or so. Their work gets hampered when family-man Lawrence and swinging-bachelor Smith switch identities for the benefit of their star witness (*The Naked Truth*'s Téa Leoni). In the end, it doesn't make much sense, but that's hardly a priority in a movie whose only

desire is to pander to the lowest common denominator. —M. Faust

MAD LOVE

FROM *REBEL WITHOUT A CAUSE* AND *West Side Story* to *River's Edge* and *Edward Scissorhands*, troubled-teen movies always manage to strike a chord with hormone-soaked adolescents. As the latest example in this time-honored genre, *Mad Love* (Touchstone/Image; VHS, priced for rental; CLV disc, \$40) gets its juice not from taut direction or a snappy screenplay, but from sheer Star Power. In this case, Drew Barrymore has the power. Her acting here won't win any awards, but it's difficult to look away as she hyperemotes her way through this appealing if straightforward movie. Poor Chris O'Donnell can hardly keep up with her, coming off as merely adequate in his role as the "responsible" teen who gets in over his head when he falls for this unstable yet spunky blonde. You could easily drive a 16-wheeler through some of *Mad Love*'s plot holes and you'll certainly know what's going to happen long before the lead characters do, but *Rebel Without a Cause* didn't have much of a plot, either. —Ken Korman

SWIMMING WITH SHARKS

YOUNG EXECUTIVES ON THE MAKE will identify with the hapless Guy (Frank Whaley), who hopes to break into the movie business by working for studio honcho Buddy (Kevin Spacey). But when the Boss breaks Guy's spirit,

Jump brawl: Barkley and Crystal get technical in *Paris*



this corporate slave gets even, invading Buddy's home with gun in hand and murder on his mind. *Swimming With Sharks* (Vidmark; VHS, priced for rental, CLV disc, \$35) unfolds as a series of flashback vignettes as Guy maniacally torments his hog-tied enemy. Some of the torture scenes can be difficult to watch, and these moments undercut an otherwise finely balanced two-character dark comedy. Writer-director George Huang knows the milieu and portrays it convincingly, even on what's clearly a very tight budget. Incidentally, if Spacey seems more intense than usual, note that he co-produced this laudable indie effort. —AW

DOLORES CLAIBORNE

SOMETIMES BEING A BITCH IS ALL A woman has to hang onto." So says the title character of a movie that could have easily been called *Misery II*, and not just because it's another Stephen King adaptation that stars Kathy Bates. *Dolores Claiborne* (Columbia TriStar; VHS, priced for rental, CLV disc, \$35) comes from the Joan Crawford School of Feminism; it's the story of a downtrodden woman who gets more and more noble as her life gets progressively worse. Accused of murder, Dolores recounts her life to estranged daughter Jennifer Jason Leigh. Leigh has little to do except listen and twitch, but at least

she's free of the "Pepp'ridge Fahm" accent that defeats costars David Straithairn and Christopher Plummer. Bates turns in another excellent performance, but the movie will probably resonate most with members of the Lorena Bobbitt Fan Club. —MF

THE UNDERNEATH

DIRECTOR STEPHEN SODERBERGH changed Hollywood forever when his 1989 film *sex, lies, and videotape* proved that a true indie film—in this case, one financed by a major studio (Columbia TriStar) solely for its value as a home video—could score big at Cannes and at the domestic box office,

NOW IN STORES

AMATEUR

1995. Isabelle Huppert, Martin Donovan; dir. Hal Hartley. An oddball crowd—a would-be nymphomaniac and pornography-writing ex-nun, an amnesiac with a criminal past, and a good old-fashioned prostitute—spin a post-modern web. Dolby Surround. (R) 105 min. VHS priced for rental. LD letterboxed (1.85:1) \$35. Columbia TriStar.

BELLE DE JOUR

1967. Catherine Deneuve, Jean Sorel, Michel Piccoli, Genevieve Page; dir. Luis Buñuel. Beauty and debased: Bored bourgeoisie newlywed Deneuve seeks a certain *je ne sais quoi* in prostitution, existential sleaziness, and groovy Yves St. Laurent clothes. Mono, subtitled. (R) 100 min. VHS priced for rental. LD letterboxed (1.66:1) \$50. Image/The Criterion Collection.

CLUELESS

1995. Alicia Silverstone, Paul Rudd, Stacey Dash, Dan Hedaya; dir. Amy Heckerling. Like, this Beverly Hills Valleyspeak high-school teenette? totally sets out to use her popularity, achieved through a totally excellent fashion drive, as, like, a tool for human good? As if. Dolby Surround. (PG-13) 97 min. VHS priced for rental. LD (1.85:1) \$40. Paramount/Pioneer.

□ DIE HARD

□ DIE HARD 2: DIE HARDER

□ DIE HARD WITH A VENGEANCE

1988/1990/1995. Bruce Willis, Bonnie Bedelia, Alan Rickman, Alexander Gudonov; Reginald Vel Johnson, William Atherton, Samuel L. Jackson, Jeremy Irons Sam Phillips; dir. John McTiernan (*Hard*)/Renny Harlin (*Harder*)/McTiernan (*Vengeance*). Detective John McClane (Willis) deals with progressively nastier villains (and a progressively receding hairline) in these digital demolition fests. Dolby Surround AC-3. (R) 132/123/129 min. LDs letterboxed (2.35:1) \$50 each. TCF/Image.

FIRST KNIGHT

1995. Sean Connery, Richard Gere, Julia Ormond; dir. Jerry Zucker. Call this King Arthur retelling a hard day's Knight. Dolby Surround. (PG-13) 134 min. VHS priced for rental. THX-approved LD letterboxed (1.85:1) \$45. Columbia TriStar.

□ A HARD DAY'S NIGHT

□ HELP!

1964/1965. B&W/color. The Beatles, Wilfrid Brambell, Victor Spinetti, Leo McKern, Eleanor Bron; dir. Richard Lester (both).



Belle of the ball: Deneuve in de Jour

Both classic Beatles films are lovingly remastered for VHS with CD-quality sound, with extras found on the previously issued LD versions—an interview with Lester, *The Running, Jumping & Standing Still* film that inspired his involvement, photos, unreleased footage, and a radio interview with the lads. Hi-Fi Digital Stereo. (G) 108/98 min. VHS \$20 each. MPI.

THE INN OF THE SIXTH HAPPINESS

1958. Ingrid Bergman, Curt Jurgens, Robert Donat; dir. Mark Robson. Classic true-life story of a missionary stationed in China. Stereo. (NR) 158 min. VHS \$20. LD letterboxed (2.35:1) \$50. TCF/Image.

JAWS LIMITED-EDITION SIGNATURE COLLECTION

1975. Richard Dreyfuss, Roy Scheider, Robert Shaw; dir. Steven Spielberg. Before there were dinosaurs, before there was Indy... there was Jaws! The VHS version includes 10 minutes of interviews, while the LD box set includes the Robert Benchley novel, a CD of John Williams' score, outtakes, storyboards, and home movies. Mono. (R) 125 min. VHS letterboxed \$20. All-CAV LD letterboxed (2.35:1) \$150. MCA/Universal.

JOHNNY MNEMONIC

1995. Keanu Reeves, Dolph Lundgren, Tokeshi, Ice-T; dir. Robert Longo. Even a screenplay by William (*The Neuromancer*) Gibson, the inventor of cyberspace, can't save Longo's tale of a chip-implanted data carrier (Reeves); based on Gibson's short story of the same name. Dolby Surround. (R) 98 min. VHS priced for rental. LD letterboxed (1.85:1) \$40. Columbia TriStar.

JUDGE DREDD

1995. Sylvester Stallone, Armande Assante, Diane Lane, Rob Schneider, Joan Chen; dir. Danny Cannon. Though the film lacks the playful wit and originality of its comic-book source, Stallone is convincing as a cartoon character. Dolby Digital Stereo. (R) 101 min. VHS priced for rental. LD letterboxed (1.85:1) \$40. Miramax/Image.

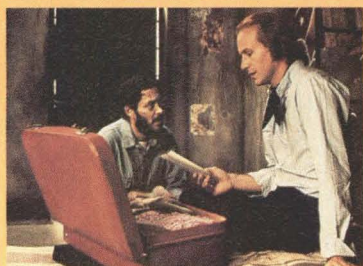
SMOKE

1995. Harvey Keitel, William Hurt, Forest Whitaker, Stockard Channing, Ashley Judd; dir. Wayne Wang. The sheer pleasure of watching Keitel, Hurt, and Whitaker just chewing the fat together, coupled with filmmaker Wang's love of ordinary humanity, makes this story of deadbeat dads and their screwed-up offspring a real feel-good movie. Dolby Surround. (R) 112 min. VHS priced for rental. LD letterboxed (1.85:1) \$40. Miramax/Image.

—Josef Krebs

LABELS FOR LESS

OVER AT MGM/UA, THE KING OF DEADLY puns—Bond, James Bond—is back, boxed in bargain-basement style in *Bond Vol. 1* (*Dr. No*, *From Russia With Love*, *Goldfinger*, and the *Goldfinger* soundtrack) and *Bond Vol. 2* (*You Only Live Twice*, *Diamonds Are Forever*, *Thunderball*, and the *Thunderball* soundtrack; \$45 each); both sets are also available as a combo (\$90) or split apart into solo adventures, right alongside non-Connery offerings like *On Her Majesty's Secret Service* and *Live and Let Die* (\$15 each). Buena Vista, meanwhile, launches the action in *Stakeout*, *Good Morning, Vietnam*, and *Ernest Goes to Jail* (\$10 each). Orion brings you wacky warriors in the *Robocop* Trilogy (\$40), *F/X 2: The Deadly Art of Illusion*, *Cadillac Man*, and *Desperately Seeking Susan* (\$15 each), while Columbia TriStar hires out



Spider Woman's Julia, Hurt

their kooky killer in *The Professional* and New Line just keeps makin' em *Dumb and Dumber* (\$20 each). Finally, for those quiet souls who prefer to avoid bombast while having a blast, Buena Vista digs up some straight comedy in *Encino Man*, Orion serves straight romantic comedy with *Mixed Nuts*, *Hannah and Her Sisters*, and *Mermaids* (\$15 each), and Polygram puckers up for some not-so-straight romantic comedy and drama in *Priscilla, Queen of the Desert* and *Kiss of the Spider Woman* (\$20 each). —JK

and it paved the way for movies like *Pulp Fiction*. Now in his fourth turn in the director's chair, Soderbergh has come through with another quirky original, *The Underneath* (MCA/Universal; VHS, priced for rental, CLV disc, \$35). Peter Gallagher plays a compulsive gambler who returns to the sleepy hometown and ex-girlfriend he abandoned when his debts got out of control. When he finds that she's living with a crooked club-owner, he decides to bet his life to win her back. The plot twists are admirable, and tension runs high. In the rash of noirish crime-movie fare currently bulging on video-store shelves, don't let *The Underneath* get buried. —KK

CONGO

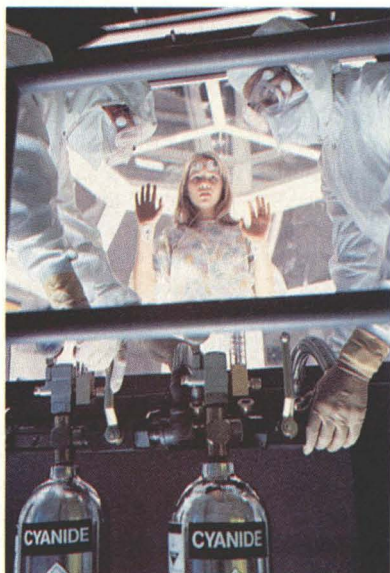
CONGO (PARAMOUNT; VHS, PRICED FOR rental, CLV disc, \$40) sprang from the very same fertile imagination that brought us *Jurassic Park* and *Rising Sun*, but author Michael Crichton has to take a large share of the blame for this unintentional laugh riot of a movie, which probably earned its \$80 million box-office take on the strength of his name. Crichton's slapdash story brings together a motley crew of would-be explorers on a thoroughly implausible mission to Africa: There's the beautiful former CIA agent (Laura Linney) who needs rare diamonds to power a new laser, a Romanian adventurer (Tim Curry) looking for the Lost City of Zinj and its fabled diamond mines, and a scientist (Dylan Walsh) who taught Amy the gorilla to talk with the aid of a special computer and now has the thankless task of returning the homesick ape to the jungle. Said gorilla, obviously portrayed by an actor in a rubber suit, lends the movie a surreal quality from which it never fully recovers. Curry makes a wonderfully silly villain, and tour guide Ernie Hudson gamely delivers his best impersonation of Jeffrey Holder, but the only real suspense in *Congo* comes from not knowing which actor will go over the top first. "This isn't Mr. Ed," one character observes early on. I'm not so sure. —KK

Monkey see 3-D, monkey do: *Congo's* Walsh and "Amy"



U2: RATTLE AND HUM

THOUGH HE GETS RIBBED BY HIS bandmates for uttering a cliché, U2 drummer Larry Mullen Jr. hits it right on the head when he describes U2: *Rattle and Hum* as "a musical journey." *Rattle* (Paramount/Pioneer; CLV disc, \$40), which was filmed in 1987–88, follows the Irish foursome step by step as they transform longstanding critical acclaim into domination of the U.S. charts, and it's a telling portrait of how foreigners deal with their obsession with American culture. Though vanity and self-importance (especially in the antics of vocalist/frontman Bono) often rear their ugly heads and threaten to derail the straightforward intentions of director Phil Joanou, the film is a fascinating look at the band's wide-eyed trek across the States, which includes stops at a Harlem church, Graceland, and Memphis' Sun Studios, as well as a score of riveting live performances. This special LD reissue was supervised by Joanou and "re-recording mixer" Chris Jenkins, who've replaced the original release's Dolby Stereo soundtrack with Dolby Surround AC-3. The difference is especially potent during the concert sequences; your sub channel will simply throb with the low-end rumble evident in "Exit/Gloria" and "Bullet the Blue Sky." As long as you can bypass Bono's ego, *Rattle and Hum*



Tank girl: *Species'* Williams as young Sil

comes across as a wonderful Irish treat.

—Mike Mettler

SPECIES

THE RUNAWAY SUCCESS OF *STARGATE* and *Species* makes it clear that we're dying for science-fiction thrillers, so why can't Hollywood come through with a good one? In *Species* (MGM/UA/Image; VHS, priced for rental, CLV disc, \$35), a seemingly friendly alien civilization sends us a mysterious genetic code that our scientists blend with human DNA, inadvertently creating the unstoppable—and beautiful—Sil, a monster whose only purpose is to reproduce. But when Sil (Natasha Henstridge; her younger incarnation is played by Michelle Williams) stalks her male victims in a decadent L.A. nightspot, the movie turns into a heavy-handed parable about AIDS and safe sex. And what in the world is Ben Kingsley doing here? (Did he need a change of pace after *Schindler's List*?) Artist H.R. Giger (*Alien*) was commissioned to design Sil's look, and he's come up with a truly cool monster—but when she moves, she tends to look like she just wandered off the set of a tire commercial. Such is the nature of special effects: Last year's breakthrough is this year's bargain basement.

—KK

THE LAST GOOD TIME

HERE'S A FINE LITTLE PICTURE THAT isn't "cinematic" as much as it is superb. The wonderful Armin Mueller-

Stahl plays a retired violinist who finds that living in the past is infinitely more desirable than living in the present. But when a lovely, troubled young neighbor (Olivia d'Abo) comes to his door seeking refuge, his carefully constructed world quickly turns upside-down. The premise of *The Last Good Time* (Hallmark/Image; VHS, priced for rental, CLV disc, \$40) is fairly similar to that of Louis Malle's *Atlantic City* (1981), though director Bob Balaban doesn't lean as much on the melodrama. The problems of older people (and young ones) are presented in precise and often rueful detail, and the characters are fully developed with minimal effort, with fine support from Maureen Stapleton and the late Lionel Stander. Thankfully, none of the scenes look compromised in the full-frame VHS version. But be warned that *The Last Good Time* lasts just 90 minutes, not 137 as stated on the packaging.

—Sol Louis Siegel

A TALE OF WINTER

IF YOU'VE EVER HAD OCCASION TO SEE an Eric Rohmer movie, chances are the story involves a young woman's summer-vacation romance. *A Tale of Winter* (New Yorker; VHS only, \$90) is no exception to the Rohmer rule, but it focuses more on the consequences of a meeting that affects the rest of the woman's life. To summarize: Boy meets girl, they fall in love, he promises to keep contact with her. Cut to 5 years later: She's had his kid but he doesn't know it because she accidentally gave him the wrong address; but, being both practical and French, she now has a poor intellectual lover as well as a wealthy man she's going to live with until the one she really loves shows up. With seemingly little effort, Rohmer takes some fairly ordinary characters and creates high romance and a debate of philosophical and metaphysical proportions. Questions of faith, religion, personal responsibility, and reincarnation are gamely raised, as characters cite Pascal, Plato, Sophocles, Shakespeare, Victor Hugo, and various deities to support their respective positions on the nature of love. With *Winter*, Rohmer has once again tapped the simplest of stories to induce a viewer to examine his or her own life, loves, and beliefs.

—JK

Definitive Technology

The Leader In High-Performance Loudspeakers.

Authorized Dealers

AK: Alaska Audio: Juneau Pyramid: Anchorage.
AL: Cohen's Electronics: Montgomery Kincaid's TV: Tuscaloosa
Lakis Audio: Birmingham.
AR: Custom Audio Video: Little Rock.
AZ: Jerry's Audio Video: Phoenix, Tucson.
CA: Access to Music: Larkspur Accurate A/V: S. Lake Tahoe Audio
Concepts: Long Beach, San Gabriel Bay Area Audio: San Jose
Creative Stereo: Santa Barbara, Ventura David Rutledge Audio:
Palm Desert DB Audio: Berkeley Digital Ear: Tustin Larson's:
Redding Monterey Stereo: Monterey Pacific Coast A/V: Newport
Beach Paradyne: Sacramento Performance Audio: San Francisco
Sound Co.: Escondido, San Diego SpeakerCraft: Riverside System
Design: Redondo Beach Videotek: Westminster Westchester TV:
Bakersfield Wilson A/V: Woodland Hills.
CO: Listen Up: Denver Boulder, Colorado Springs.
CT: Al Franklin's: Hartford Carston's Audio Video: Danbury
Robert's Audio Video: New London.
DC: Suburbs: Audio Buys.
DE: Sound Studio: Newark, Wilmington.
FL: Absolute Sound: Winter Park Audio Advisors: West Palm Beach
Audio Center: Deerfield Beach The Audiohouse: Vero Beach Cooper
for Stereo: Clearwater.
HI: Hoyt Stereo: Jacksonville Palm Audio: Destin Sensuous Stereo:
Tampa Sound Components: Coral Gables Sound Ideas: Gainesville
Sound Insight: Ft. Pierce Stereotypes: Daytona Beach Stereo World
Ft. Myers, Naples Stuart A/V, Stuart.
IA: Audio Warehouse: San Anish Ken's Stereo Jct.: Macon Laser
Disc Enterprises: Atlanta Merrill TV: Columbus Stereo Connections:
Valdosta Stereo Festival: Atlanta Stereo Shop: Martinez.
IL: Audio Center: Honolulu.
IN: Archer Audio Video: Ft. Dodge Audio King: Cedar Rapids, Des
Moines Audio Video Logic: Des Moines Audio Visions: Sioux City
Camera Corner: Davenport Hawkeye A/V: Iowa City Waterloo.
ID: Ultimate Electronics: Boise Wise Buy: Idaho Falls.
IL: United Audio Ctr: Chicago & Suburbs Camera Corner:
Bloomington Cars & Stereo: Rockford Jon's Home Ctr.: Quincy Sd
Forum: Crystal Lake Select Sd: Naperville Sundown A/V: Springfield.
IN: Audio Video Lifestyles: Fort Wayne Ovation Audio: Clarksville,
Indianapolis.
KS: Accent Sound: Overland Park Advance Audio: Wichita
Audio Junction: Junction City, Manhattan.
KY: Ovation Audio: Lexington, Louisville.
LA: Alterman Audio: New Orleans Metairie. Sound Advice: Baton
Rouge Wright's Sound Gallery: Shreveport.
MA: Cookin': Chestnut Hill, Saugus Goodwins Audio: Boston,
Shrewsbury Nantucket Sound: Hyannis.
MD: Audio Buys: Annapolis, Gaithersburg, Laurel, Rockville, Waldorf
Gramophone: Balt., Ellicott City Soundscape: Baltimore.
ME: Cookin': Portland.
MI: Pecar's: Detroit Troy Classical Jazz Holland-Classic Stereo:
Kalamazoo, Grand Rapids Front Row A/V: Flint Court St. Listening
Room: Midland, Saginaw.
MN: Audio Designs: Winona Audio King: Minneapolis & Suburbs,
Rochester, St. Cloud Audio Perfection: Minneapolis.
MO: Independence A/V: Independence Sound Central: St. Louis.
MS: McAlland TV: Hattiesburg Players A/V: Ridgeland.
NY: Car & Home Stereo Ctr.: Billings Rocky Mt. Hi Fi: Great Falls.
NY: Audio Video Systems: Charlotte Audio Visions: Wilmington Now
Audio Video: Durham Greensboro, Raleigh, Winston Salem Audio
Lab: Wilmington Tri City Elect.: Conover.
NE: Custom Electronics: Omaha, Lincoln.
NH: Cookin': Nashua, Manchester, Newington, Salem, S. Nashua.
NJ: Hal's Stereo: Trenton Monmouth Stereo: Shrewsbury, Wall
Sound Waves: Northfield Woodbridge Stereo: West Caldwell,
Woodbridge.
NM: Ultimate Elect.: Albuquerque Sound Ideas: Albuquerque.
NV: Ultimate Elect.: Las Vegas Upper Ear: Las Vegas.
NY: Audio Breakthroughs: Manhasset Audio Den: Lake Grove Audio
Expressions: Newburgh Audio Junction: Watertown Clark Mus.: Al-
bany, Syracuse Stereo Exchge.: Manhattan, Nanuet Hart Elect.: Ithaca,
Vestal Innovative Audio: Brooklyn Listening Rm: Scarsdale Rowe
Camera: Rochester Sound Mill: Mt. Kisco, Yorktown Hts. Speaker
Shop: Amherst, Buffalo.
OK: Contemporary Sounds: Ok. City K Labs Premium Audio: Tulsa Photo
World: Bartlesville Ultimate Electronics: Tulsa.
OH: Audio Craft: Akron, Cleveland, Mayfield Hts., Westlake Audio
Etc.: Dayton Paragon Sound: Toledo Threshold Elect.: Heath.
OR: Bradford's HiFi: Eugene Chelsea A/V: Portland, Beaverton
Kelly's Home Ctr.: Salem Larson's: Medford, Roseburg Stereo
Plant: Bend.
PA: Audio Junction: Pittsburgh Gary's Elect.: State College GNT
Stereo: Lancaster Hart Elect.: Blakely Kingston Hi Fi House: Abing-
ton, Broomall, Camp Hill, Harrisburg Listening Post: Pittsburgh
Palmer Audio: Allentown Stereoland: Natrona Heights
Studio One: Erie The StereoShop: Greensburg.
RI: Stereo Discount Ctr.: Providence.
SC: A/V Design: Charleston Custom Theater & Audio: Myrtle Beach
Odyssey Audio: Columbia.
SD: Audio King: Sioux Falls.
TN: College HiFi: Chattanooga Hi Fi Buys: Nashville Now Audio
Video: Knoxville Modern Music: Memphis New Wave Elect.:
Jackson Sound Room: Johnson City.
TX: Home Entertainment: Dallas, Houston, Plano Audio Tech:
Temple, Waco Audio Video: College Station Brock A/V: Beaumont
Bunkley's Sd. Systems: Abilene Bjorn's: San Antonio High Fidelity:
Austin Krystal Clear: Dallas Marvin Electronics: Ft. Worth
Sd. Box: San Angelo Sd. Quest: El Paso Sd. Systems: Amarillo
Sd. Towne: Texarkana.
UT: Alpine Elect.: Provo AudioWorks: Salt Lake City Crazy Bob's:
St. George Stokes Bros.: Logan Ultimate Elect.: Layton, Murray,
Orem, Salt Lake City.
VA: Audio Buys: Arlington, Fairfax, Falls Church, Manassas Audio
Connection: Virginia Beach Audiophonics: Roanoke Home Media
Store: Richmond Stereo Type: Charlottesville.
VT: Audio Video Authority: S. Burlington.
WA: Definitive Audio: Bellevue, Seattle Evergreen Audio: Silverdale
Pacific St. & Sd.: Wenatchee Tin Ear: Kennewick.
W.VA: Sound Post: Princeton.
WI: Audio Emporium: Milwaukee Absolute Sd. & Vision: Sheboygan
Hi-Fi Heaven: Appleton, Green Bay Sd. World: Wausau.
Puerto Rico: Precision Audio: Rio Piedras.
Canada: A & S Sound: Calgary Edmonton, Kelowna, Vancouver &
Suburbs, Victoria Advance Electronics: Winnipeg Bay Blor Audio:
Toronto Centre Audio Charest: Trois Rivières CORA: Quebec City
Digital Dynamics: Clearbrook Great West Audio: London Kabecson:
Montreal Lipton's: New Market Ontario Peak Audio: Halifax Sound
Room: Vancouver Stereoland: Windsor Treble Claf: Ottawa.
Mexico: Contact Grupo Volumen: Mexico City.

BULL DURHAM

THE JOYS OF MINOR-LEAGUE BASEBALL are on full display in *Bull Durham* (1988; Orion/Image; CLV disc, \$40), writer/director Ron Shelton's visit to the church of baseball, which has just been reissued in a 1.85:1 wide-screen transfer. Everybody on the hapless Durham Bulls dreams about mak-

ing it to "The Show" (the big leagues), but only rocket-armed pitcher Nuke LaLoosh (Tim Robbins) has a real shot. He's got good help: veteran catcher Crash Davis (Kevin Costner)—"I'm the player to be named later"—is brought in to teach the lad about mental and physical control, while benevolent groupie Annie ("Oh my!") Savoy (Su-

san Sarandon) has other plans for Nuke's development, including kinky late-night poetry readings. Shelton does a good job of getting inside ballplayers' heads during the heat of competition, and there's a great scene that answers the burning question, "What do players *really* talk about when they gather on the mound?" The widescreen format allows the scenes on the playing field to breathe, though the colors are occasionally murky, much like the dusk that falls before a night game's first pitch. **Ironic-Twist Dept.:** Dig the following comment from Costner, who later played Jim Garrison in Oliver Stone's conspiracy-laden *JFK*, during *Durham*'s famed "What do you believe in?" sequence: "I believe Lee Harvey Oswald acted alone." Oh, my. —MM

Edit Suite ... let the good scenes roll!

The Edit Suite A/B roll edit controller lets you perform A/B/C/D rolls from four video sources!



Edit Suite defines editing versatility: ☐ It controls both consumer and professional VCRs, supporting Control-L, Control-M, RS-232, and

Edit Decision List (EDL). ☐ The EDL stores up to 250 scenes. ☐ You can export EDL data to your computer for storage. ☐ You can also

export CMX-compatible EDL data so off-line work can be transferred to an on-line studio. ☐ Edit Suite supports advanced VCR features



Dissolve from one scene to another; preview your edits; and automatically trigger over 200 digital transition effects when you use Edit Suite with the Videonics Digital Video Mixer.

RS-422 protocols. ☐ It reads RC, VITC, and LTC timcodes. ☐ Two GPI triggers control external mixers, titlers, and SEGs. ☐ When used with Videonics' Digital Video Mixer, it rolls between any of four sources; when used with other GPI-compatible mixers, it works as a two-source A/B roll controller. ☐ The user-friendly control panel has a jog/shuttle wheel for precise VCR control and a back-lit LCD that displays the

such as insert edits, split edits, and more.

☐ Edit Suite is just \$699*.

Call 1-800-338-EDIT for your nearest dealer or authorized mail order house.

*U.S. suggested retail price. Mixer sold separately. All Videonics products carry a 2-year limited warranty. Ask about our national seminar program.



VIDEONICS
The Video Editing Company

1370 Dell Avenue • Campbell, CA 95008 • 408-866-8300

© 1995 Videonics, Inc. Subject to change without notice. Videonics logo and Video Edit Suite are registered trademarks of Videonics, Inc. TV screens are simulated.

PLATOON SPECIAL EDITION

AT \$130, THE PIONEER SPECIAL EDITION of *Platoon* (1986; CLV/CAV discs) may just be the most expensive two-platter movie in the LD library. But since the technical pleasures of this *Platoon*, which include a THX-approved transfer, a remixed soundtrack, and a 1.93:1 aspect ratio, can be enjoyed on Pioneer's \$50 version, why bother spending the extra bucks? Because the intensity of Oliver Stone's breakthrough movie, which is unabashedly based on his grim stint as a grunt in Vietnam, can only be completely absorbed by wading through the special materials amassed in this glorious package. The oversized-scrapbook design accommodates photographic mementos of both Stone the soldier and Stone the filmmaker; it also holds a 144-page book with more photos and the entire shooting script, complete with notations regarding some significant revisions. Side 4 is devoted to a terrific 1-hour documentary on the making of the film, with commentary from Tom Berenger, Willem Dafoe, and Charlie Sheen. Most memorable, though, are the two separate running-commentary tracks featuring Stone and military advisor Dale Dye. To borrow a phrase from Sheen, the sheer "Stone-osity" of the combined disc-and-print experience is overwhelming. Rarely has a trial by fire in an artist's life been rendered so hauntingly, or fully.

—AW



THX Cables?

The people at Lucasfilm THX know about sound. They know that cables make an important difference. And they



know that, especially for Home Theater, you can't expect to get the very best possible sound from your sys-

tem unless the cables you use are just as good as your other components.

That's why the Lucasfilm Home THX

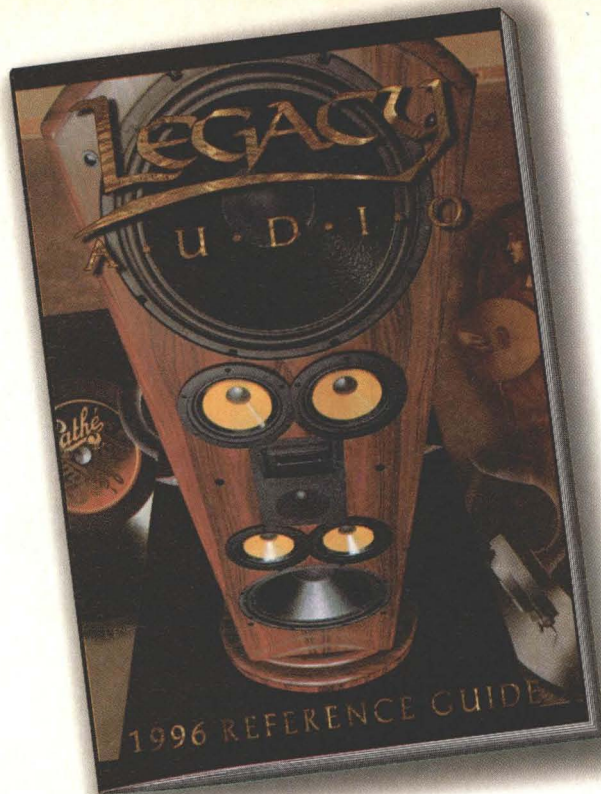
Program establishes test procedures and solid, measurable performance standards for cables.

And that's why Lucasfilm THX certifies the performance of XLO/VDO™ cables, and *not* all the others.

XLO/VDO is the complete line of cables for home entertainment™ from XLO Electric Co., Inc., whose products are recognized everywhere as "The Best in the World."

XLO/VDO™

The
spirit of
giving is
in the
air...



...so
what
are you
getting
you?

To receive your free 1996 Reference Guide

CALL 1-800-AUDIO-HI

(That's 1 - 8 0 0 - 2 8 3 - 4 6 4 4)

The brand new Legacy High Current Preamplifier with Remote Control



SERVICE: 217-544-5252
FAX: 217-744-7269

SINCE 1983
LEGACY
A · U · D · I · O

3021 SANGAMON AVE.
SPRINGFIELD, IL 62702

The Best Equipment. The Best Prices. The Best Service.

CIRCLE NO. 82 ON READER SERVICE CARD

MULTIMEDIA



FAST FORWARD

Game On

MATSUSHITA, PARENT company of Panasonic, recently purchased the rights to most major applications of 3DO's M2 technology for \$100 million. M2-equipped 3DO videogame consoles are expected to be the first true 64-bit systems when they arrive in the United States in the second half of 1996. Matsushita's move casts a shadow over Nintendo's introduction of their near-64-bit Ultra 64 game system, which is scheduled for this April, and turns up the heat on Sega and Sony regarding upgrades for, respectively, their Saturn and PlayStation systems.

● Sega dropped Saturn's price \$50, to \$299, in the fall, and Sony's introduction of PlayStation is said to be the motivating factor. PlayStation is reportedly outselling Saturn by a wide margin.

—Bill Wolfe

Surround Again

AUDIO MAINSTAY DOLBY Labs will be licensing a variation of Dolby Pro Logic surround sound for use in computer and multimedia applications. The nuts and bolts of the new decode process are still being hammered out, but it does have a name: Dolby Surround Multimedia. Since computer users usually sit very close to their speakers, Dolby says that DSM will be optimized for near-field use and be based on two-

speaker playback with phantom center-channel and surround information folded in to the main stereo channels. Dolby Surround-encoded software and an onboard DSM decoder will be required to make it go.

—Marc Horowitz

Indeo Inside

INTEL, WHICH OWNS THE lion's share of the computer-chip market, is gaining support for their Indeo data-reduction technology. Even though it only works at 15 fps, Indeo is said to rival MPEG-1 computer video in image quality and surpass it in terms of interactive capabilities. Compton's New Media, Tsunami, Information Pilots, and others are currently working with the technology.

—MH

The Real World

CONSUMERS ARE PREY TO confusion over the real-world size of computer monitor screens. Some manufacturers use the actual image area in their ads and promotional materials, but some simply list the (larger) size of the monitor's CRT; along with being misleading, the latter complicates comparisons. So a trade group has established a task force that'll hammer out guidelines for describing them. The catch: The guidelines will be voluntary, though it should prove easy to tell when they aren't being used.

—BW

Culture Club

CORBIS, A COMPANY OWNED by Microsoft Chairman Bill Gates, has purchased the Bettmann Archive for an undisclosed sum. The Archive includes over 16 million illustrations, news photos, and artworks, including many that are instantly recognizable—the explosion of the zeppelin Hindenburg, for example, or Marilyn Monroe's famous pose from *The Seven-Year Itch*. Corbis also has agree-



ments with the State Hermitage Museum in St. Petersburg, Russia, London's National Gallery, and other major cultural institutions. A Corbis spokesman says that the images will be digitized via high-speed scanners, used by Microsoft, and licensed to other multimedia developers.

—BW

tracks of music plus one music video, interview, concert video, or other type of audio/video entertainment. The audio-only tracks can be played on any CD player, while the multimedia tracks can be read by most PC- and Mac-based CD-ROM players, according to nu.millennia/inc.

—Chuck Tannert

Nu Music

NU.MILLENNIA/inc. recently announced deals for Enhanced CDs with Clay Walker, Soundgarden, Terence Trent D'Arby, White Zombie, and P.M. Dawn. The discs (\$15 to \$19 each) will include up to 10

ON THE INSIDE

NEW TECH
106



SOFTWARE
106



SHORTWARE
108





SOFTWARE

ROBERTA WILLIAMS' PHANTASMAGORIA

SPAWLING ACROSS SEVEN CD-ROMS like some sinister fog, *Roberta Williams' Phantasmagoria* (\$70), the much-awaited first-person mystery adventure from Sierra, is a dark and compelling gumbo comprised of a classic horror storyline, cinematic effects, and a lush, tension-building soundtrack. Players assume the role of mystery writer Adrienne Delaney, who, along with her photographer husband Don, has just purchased a mysterious mansion located on a deserted New England island. Things in the house are not as they seem, of course, and wedded bliss quickly mutates into abject terror.

Phantasmagoria's visuals are mighty impressive, particularly the finely detailed rooms spread throughout Adrienne and Don's vast estate. Williams, creator of *King's Quest* (the beloved fantasy-game series), has used a \$4-million budget to create fully cinematic sequences complete with movie-style cuts and pans to add to the horror-movie vibe, though they're mainly used to introduce the game's opening chapters. As befitting a game with some pretty intense content (both graphic violence and sex), Sierra offers a censor option to block the racier scenes.

Phantasmagoria isn't perfect, however. Sometimes you spend too much time watching events unfold rather than interacting, and a few too many horror-movie clichés appear. Shortcomings aside, *Phantasmagoria* represents a big step in pushing first-person graphic adventures to the next level in terms of storyline and content. Scary-Thought Dept.: If it took seven discs to house *Phantasmagoria*, how many is the sequel going to need? (Windows discs)

—James K. Willcox

ESPN EXTREME GAMES

ESPN EXTREME GAMES, AN EXCLUSIVE offering for Sony's PlayStation, throws a welcome wrench into the world of fast-paced racing games by replacing the familiar cars and motorcycles with a choice of skateboards, rol-



Grave findings: *Phantasmagoria*

lerblades, mountain bikes, or—get this—street luge. It's a welcome addition to the burgeoning PlayStation family, as six distinctive ramp-filled courses will have you thumping through the cobblestone streets of Rome or kicking up dust in the ghost towns of Utah. *Extreme* (\$60) certainly lives up to its title—to stay at the front of the pack, you literally have to punch and kick your competitors. Cool bonus feature: Accumulate enough winnings over the course of several races and you'll be able to "purchase" the latest in hip high-tech gear, such as the radical "Smokin' J" skateboard (it's yours for a mere \$610). Let the *Games* begin. (PlayStation disc) —Ken Korman

GUINNESS MULTIMEDIA DISC OF RECORDS

LIKE ITS PRINT COUNTERPART, GROLIER's *The Guinness Multimedia Disc of Records* (\$50) compiles thousands of records into a fascinating if loopy whole. Want to know where and when the longest baseball game ever took place, or what the best-selling home

PANASONIC's KXL-D721 (\$599) is a one-stop multimedia upgrade for portable PCs. The kit includes the KXL-D720 PCMCIA portable CD-ROM player, a battery-powered speaker system, a sound/scsi card, and ESS's *Audio Sound Suite* software. The 14-ounce 2x CD-ROM player operates on

AC power or six AA batteries. Audio is 16-bit with a 44-kHz sampling rate, and a 24-voice, Yamaha OPL-3-

compatible FM music synthesizer is on tap. The D721 is compatible with DOS, Windows 3.1, and Windows 95. D720 owners can add the speakers, sound card, and software for \$349. Circle 127 on reader service card

NEW TECH

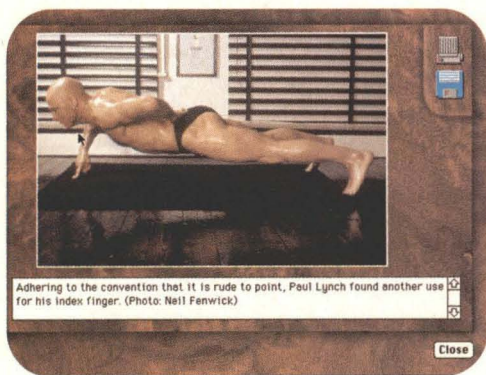


JAZZ MULTIMEDIA's Jakarta MPEG video graphics accelerator (\$499) is said to play full-motion, 30-fps video with 24-bit color, and its 2 MB of DRAM is said to produce resolutions of up to 1,280 x 1,024 pixels with 256 colors and a "flicker-free" refresh rate of 75 Hz. The lower the resolution (640 x 480 minimum), the higher the refresh rate (up to 110 Hz) and color count (up to 16.7 million). Digital processing is said to allow for smooth scaling, cropping, and color-space conversion. The package also offers 16-bit audio and Video CD-compatibility. Circle 128 on reader service card

video is? This ROM is for you.

While some of the videoclips are subpar and the interface can be confusing, there are some high points. The "Superlatives" feature, which groups records by degrees of quality (biggest, fastest, heaviest, and so on), is handy. But the standout feature has to be a Trivial Pursuit clone called "Guess What?" which has an accent on the truly trivial: Random questions are tossed out with multiple-choice answers, and you're granted immediate access to the correct answer's full listing with just a click of the mouse. Though *Guinness* could benefit from more depth, fans of the book versions are sure to find hours of enjoyment at hand. (Mac, Windows discs)

—Pete Hisey



Guinness Multimedia Disc of Records

POETRY IN MOTION II

AS ERNEST HEMINGWAY ONCE SAID IN defense of an imprisoned Ezra Pound, all poets are crazy. So it pretty much goes without saying that watching and listening to a poet perform his or her work is much more fascinating than reading the poem yourself. Enter Voyager's *Poetry in Motion II* (\$30), which brings home contemporary American poetry via *QuickTime* movies and interactive text.

Click on a line of text and the action in the *QT* movie jumps to the same point. The "cast" is rich and various: Al-

ice Notley takes on the voice of Jack Kerouac in her wonderful "Jack Would Speak Through the Imperfect Medium of Alice," Allen Ginsberg does his thing in "Do the Meditation Rock," and 22 other poets—including Charles Bukowski, Jim Carroll, John Giorno, Tom Clark, and Spalding Gray—get their turn at the mic. Additional *QT* interviews unearth influences and shed light on the creative process, and there's a bibliography of each poet's work. In sum, *Poetry in Motion* is an interesting and painless introduction to the scene . . . and it adds some reason to the rhymes. (Mac, Windows discs)

—Josef Krebs

THE CRANBERRIES Doors and Windows

THE MUSIC INDUSTRY IS ABSOLUTELY tabuzz over the Enhanced CD/CD Plus format. And why not: The discs take the form of interactive audio/video programs encoded on standard music CDs. Want to listen to the music? Pop the e-disc into your CD player. Want to enjoy live clips, music videos, interviews, lyrics, and more? Slide it into your CD-ROM player. Philips Media has taken to calling their enhanced offerings "Rainbow CDs," and their first pot of gold is *The Cranberries: Doors and Windows* (\$30). The disc's content may not be groundbreaking—if you're familiar with other point-and-click CD-ROMs like Prince's *Prince Interactive* or Bob Dylan's *Highway 61 Revisited*, you're pretty much in the house. But *Doors* is still a slick package, containing five previously unreleased recordings from this popular Irish band, including live versions of chart hits like "Dreams" and "Zombie."

The format seems ready to make it to the next level: 250,000 copies of *Freedom Sessions*, the e-disc from Canadian songstress Sarah McLachlan, have been sold to date. Perhaps *Doors* will lead this particular software parade. (CD-i disc)

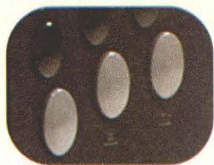
—KK



VIEWSONIC's 17GA 17-inch multimedia monitor (\$945) incorporates stereo speakers. The 17GA, which measures 17.3 x 16.5 x 17.3 inches and weighs a hefty 41 pounds, supports a maximum resolution of 1,280 x 1,204 pixels and refresh rates as high as 160 Hz. It boasts a 0.27-mm dot pitch, an ARAG anti-glare coating, and an Invar shadow mask. Image and audio settings can be controlled via on-screen menus. The 17GA also has a built-in microphone and jacks for headphones and an external mic. *Circle 129 on reader service card*



DIAMOND MULTIMEDIA's Ultra 8000 multimedia upgrade kit for PCs (\$649) includes an internal 8x CD-ROM player, five CD-ROMs (including *SimCity 2000* and *Compton's Encyclopedia*), a Plug-and-Play wavetable sound card, and a pair of Yamaha YST-M5 multimedia speakers. The CD-ROM player is Multisession XA-compatible and can spin Photo CDs. The 16-bit sound card features 32 wavetable voices and synthesized surround sound, works with Sound Blaster-compatible titles, and has both MIDI and joystick ports as well as stereo line input/outputs. *Circle 130 on reader service card*



SHORTWARE

'Mad About You Sega Genesis Nomad Portable Game Player

WHEN YOU LOOK AT ALL OF THE game systems Sega's introduced in the past 12 to 18 months, you have to figure that they're paying their engineers by the model number. Sega CD, Sega 32X, Sega Saturn—we're talking an entire toy store here. And now Sega proffers the Genesis Nomad (\$180), a portable player that runs games designed for the company's 16-bit Genesis system. The question is whether the Nomad is a case of too little, too late.

The idea of compatibility between a home game console and portable player isn't new. Though Nintendo's Game Boy and Sega's own Game Gear can't play games designed for the companies' home systems, NEC's TurboGrafx-16 home platform and their short-lived, but excellent, TurboExpress portable were entirely compatible. The incompatible approach is based on simple economics—keeping Game Boy and Game Gear separate from their respective home systems allows the companies to collect additional licensing fees and forces players to buy more games.

In any case, Sega is likely to find that Nomad's stiffest competition will come from their Game Gear system; Atari's Lynx portable is pretty much history, and Game Boy still blinks and beeps in black-and-white. Like Nomad, Game Gear is a color system, and though it isn't compatible with Genesis games, its pricetag is half that of Nomad's.

Nomad and Game Gear have other things in common. Both are about the same size and weight: almost 8 inches wide and 4 high, and weighing in at about 1 pound when loaded with six AA batteries or a rechargeable battery pack. Technical differences prove they're anything but clones, though.

Nomad, like Genesis, is a true 16-bit system. Both run on the same venerable Motorola 68000 microprocessor used by older Macintosh computers. Both



supplement the 68000 with a Z-80 chip, the 8-bit chip Game Gear employs as its main processor. Nomad also has more system RAM than Game Gear (576 kb vs. 64 kb), so it can hold and display more graphics. And though both systems have a 3.25-inch LCD screen, the Nomad's is capable of better resolution (240 x 220 pixels vs. 160 x 146). Game Gear does have a larger color palette (4,096 vs. 512), but Nomad can display more colors on the screen at one time. Helpful Analogy #11: Though Game Gear has a bigger box of Crayons, you can only use half as many to color any one drawing.

Nomad's controls are slightly more sophisticated than Game Gear's, with a six-button control pad (ABC, XYZ) instead of Game Gear's two-button array (1, 2). The extra buttons really come in handy with fight games, since they let you execute tricky punch combinations.

Though Nomad is a portable system first and foremost, you can plug it into a TV set and use it like a regular Genesis system; an onboard port lets you plug in a Genesis control pad so two players can compete head-to-head. Nomad accessories include an AC adaptor (highly recommended for home play unless your last name is Eveready), a rechargeable battery pack, and a car adaptor that plugs into a cigarette lighter.

Nomad's extra smarts help it outperform Game Gear hands down. Action is faster, graphics are slicker, and the

sound is punchier. Though the LCD screen is fine, and certainly better than Game Gear's, it's not a monster—especially compared to the active-matrix displays in some notebook PCs.

As good as the gameplay is, though, Sega may have missed the boat by not introducing Nomad sooner. It may be a no-brainer if you already have a large library of Genesis games and aren't jazzed by bigger-bit home alternatives. But 16-bit technology is on the way out no matter how you slice it, and many of

Sega Genesis Nomad										
	1	2	3	4	5	6	7	8	9	10
COSMETICS										•
EASE OF USE										•
PERFORMANCE									•	
VALUE										•
CIRCLE 131 ON READER SERVICE CARD										

the best game developers have already abandoned the platform for the greener pastures of 32- and 64-bit game systems and CD-ROM-equipped PCs. Many portable-minded players have already invested heavily in Game Boy and Game Gear. And \$180 is a lot of cash to shell out for technology that's slowly being phased out—especially when you consider that that sum is about two-thirds the price of a 32-bit Saturn or PlayStation.

—James K. Willcox

"Joe Kane Says Your TV Picture Is All Wrong. And He's Right."

— Video Magazine

Buy your Home Theater from an ISF dealer & your TV will be set up for great pictures and High Fidelity Video*

Don't blame the manufacturers. They have no choice. The lighting in mass market stores that retail most of the 25 million TV sets sold yearly is very different from the lighting in your home. Televisions are set up to look good in the harsh light of a store. ISF dealers adjust your set to look its best in the lighting in your home. Sorry, you just can't get a great picture in broad daylight. Home Theater done right requires a little light control.



*High Fidelity Video is the mix of the art of the cinematographer and the science of reproducing it on a properly calibrated television. Your TV must not make movies brighter, bluer, or in any way different from the artist's vision. ISF trains dealers to calibrate your television on delivery to accurately reproduce the incoming signal. Proper setting of color, tint, contrast, brightness, sharpness and color temperature can be yours if you choose one of these dealers.

Absolute Sound, Inc.
Winter Park, FL
(407) 629-0230

Ambrosia Audio & Video
Bel Air, CA
(310) 440-5522

Architectural Electronics™
Houston, TX
(713) 465-6333

Audio & Video Specialists, Inc.
Birmingham, AL
(205) 871-6328

Audio Images
Orange, CA
(714) 538-4608

AudioVideo Insight
Dearborn Heights, MI
(800) 272-4411

Babbage & Sons Premium Entertainment Systems
Allen Park, MI
(313) 386-3909

BBC Sales & Service
Chesterton, IN
(219) 926-6435

Better Sound, Inc.
Boca Raton, FL
(407) 338-8898

Brock Audio, Inc.
Beaumont, TX
(409) 832-0276

Busch Home Theater
Santa Rosa, CA
(707) 573-9170

Chelsea Audio Video
Beaverton, OR
(503) 641-3533

Cinematronics
Rochester, NY
(716) 475-0090

Creative Electronic Interiors
Fresno, CA
(209) 438-8553

Dallas Sight & Sound, Inc.
Dallas, TX
(214) 392-3202

Definitive Audio
Seattle, WA
(206) 746-3188

Desert Sound & Security
Tempe, AZ
(602) 360-5449

Dream Systems, Inc.
Indianapolis, IN
(317) 872-7307

Electromedia Design, Inc.
East Hanover, NJ
(800) 400-0120

Electronic Home Consultants, Inc.
Miami, FL
(305) 229-5177

Evolution Audio & Video
Agoura Hills, CA
(818) 879-1312

Future Home
Beverly Hills, CA
(310) 274-9393

Home Theatre Design Group
Van Nuys, CA
(818) 609-6426

HomeTech
Santa Rosa, CA
(707) 542-1510

HomeTronics
Dallas, TX
(214) 490-1090

Horizon Install Group, Inc.
Studio City, CA
(818) 752-4322

Jim Doolittle
Hanover, MA
(617) 826-1619

Overture
Philadelphia, PA
(800) 838-1812

Pat Bradley's Video Calibrations
Eagan, MN
(612) 894-3161

Perfect Vision Tuneup
Rockville, MD
(301) 340-6120

Performance Imaging
White Plains, NY
(914) 997-1831

Picture Perfect
Atlanta, GA
(404) 252-8308

Precision Audio/Video
Moorpark, CA
(805) 523-3005

Projection Systems, Inc.
Foster City, CA
(415) 461-3553

Savant Audio
Princeton Junction, NJ
(609) 799-9664

Sound & Vision Home Entertainment
Orland Park, IL
(708) 403-2500

Sound by Singer, Ltd.
New York, NY
(212) 924-8600

Sound Productions
Carmel, IN
(317) 844-1103

TABCOM, Inc.
Rocky River, OH
(216) 331-7511

The Listening Room, Inc.
Scarsdale, NY
(914) 472-4558

The Sound Environment, Inc.
Omaha, NE
(402) 391-3842

Total Media Systems
Farmingdale, NY
(516) 777-7058

TRM TeleFilm
West Hollywood, CA
(213) 655-8860

Tru-Line Video Technologies
Van Nuys, CA
(818) 994-0696

Vern's Electronics
Boca Raton, FL
(407) 997-9444

Woodbridge Stereo/Video
Woodbridge, NJ
(908) 636-7777

ISF Licensed Manufacturers:
Da-Lite Screen Company, Inc.
Madrigal Audio Laboratories
Runco International
Stewart Filmscreen Corporation®

ImagingScience

FOUNDATION, INC

ISF Phone 407/997-9073 • The Imaging Science Foundation is produced by Joel Silver

**THIS
FINGER
CAN HELP
YOU FIND
ANY ACCESSORY
YOU NEED.**

**JUST DIAL
800-231-0031**

Need to know something about electronic accessories? We have virtually everything for computers, cellular, telephones, audio, camcorders, car audio, antennas, video and video games, music cases, adapters and connectors.

Call us today. You've got nothing to lose and an awful lot to find!

**HAVEN
INDUSTRIES**

2950 Lake Emma Road, Lake Mary, FL 32746

© Copyright 1995 Recoton Corp., New York, NY 10022. All rights reserved.

SILICONCEIT

CONTINUED FROM PAGE 23

er, NEC has gone with MPEG-1 in their first prototype.

Using MPEG-1 (and MPEG-2 in the future), the technology needed to put movies on credit cards is already in hand. The dollars, however, are certainly not in our pockets. The economic reality is that a videotape or optical disc can be banged out for a dollar or so, marked up, and sold in great volumes for use in a huge "installed base" of players. Memory modules, meanwhile, remain very expensive, though credit-card-size PCMCIA versions are widely used by the laptop-computer crowd. A 160-Mb card costs about \$900; this means that the 7.5 Gb of memory needed for our 90 minutes of video and audio runs about \$42,000. Though *Ace Ventura: Pet Detective* is an amusing film, it may not be worth a year's salary.

Is NEC living in a dreamworld when they talk about pocket movies? Not at all—they're just forecasting the future. The cost of technology today has absolutely no bearing on what it'll cost tomorrow. Recall that the first industrial VCRs cost several hundred thousand dollars apiece. The same economics apply to solid-state video storage, and an evolution in manufacturing technology and economies of scale will gradually make the format affordable. Chances are, audio-only solid-state players will lead the way, in the same way that the CD audio format has presaged DVD; as I've pointed out, audio consumes only a small fraction of the data volume demanded by video, and therefore will be much cheaper to implement. Not surprisingly, Silicon View was first shown as Silicon Audio, a handheld solid-state audio player that used 128-Mb memory cards for 12-minute playback.

NEC's Silicon View isn't ready for primetime due to its limited playing time. But it is an exciting glimpse into the near future. There's no question that advanced data-reduction algorithms and gigabit-class memories will make stationary as well as handheld solid-state video players a reality; everyone agrees that solid-state storage is the future. And it's about time. The world's hamsters are getting mighty tired. ■

AUTHORIZED!

50 Years
in
Business

TOOLS OF THE TRADE

PAL
Camcorders
& VCRs



SHARP
VIEWCAM

Panasonic

SHARP

STEADICAM
JR

AMPHIBICO

AZDEN

SUNPAK

GO.VIDEO

RCA

CITIZEN

SONY
HANDYCAM
CAMCORDERS

SONY

Canon

JVC

bogen

Nikon

HITACHI

VIDEONICS

Beaor

NRG

Berger Bros. Camera and Video Exchange specializes in both Photographic and Video Equipment. We carry the **Largest Selection** of Camcorders and Accessories in stock and at the lowest prices. We'll help you make the right choice over the phone, that's why we can offer a full **money back guarantee**. We could list all of our Equipment in our ads like everyone else...but we call that our 240-page Catalog.

1-800-262-4160

We Compete With Any Legitimate Price & We Ship Anywhere
When Tomorrow Won't Do. Call Us Today.

BERGER BROS.

CAMERA & VIDEO EXCHANGE

(516)-264-4160 • FAX (516)-264-1007

209 BROADWAY (ROUTE 110) AMITYVILLE, N.Y. 11701

Home Theatre Speaker System

JBL

Music 1

This four-piece system consists of a pair of 2-way loudspeaker satellites, two

passive subwoofers and speaker wire.

Movie 1

Ideal for upgrading Music 1 for home cinema application, this system includes a pair of Surrounds and a Sat 1 for the center channel. Movies 1 added to Music 1 becomes a 7-piece home cinema system.

MUSIC 2 AND MOVIE 2 NOT SHOWN
PLEASE CALL FOR DETAILS

CALL TODAY for our Free catalog
with over 50 pages of Video,
Audio, and Computer Equipment.

THIS MONTH'S SPECIALS!

Canon
ES-2000

- 20X zoom lens, color view finder
- AF/AE system give you total control over the images you shoot

Optical Image Stabilization!



Panasonic
PV-IQ505

- "Works with Your VCR"
- 20 x ZOOM
- Image Stabilization & Color Viewfinder!



sima

AUTHORIZED DEALER

JVC

TOSHIBA

Canon

VIDEONICS

SONY

GO.VIDEO

RECOTON

PHILIPS

Panasonic

JBL

MITSUBISHI

PLEASE CALL FOR A FREE 52-PAGE CATALOG OF
COMPUTER, VIDEO, AND HI-FI EQUIPMENT!

SUPER VHS SPECIALS!

Over 400 Lines of Resolution

JVC **HR-S7200U**

2 FREE MOVIES



JVC's newest release!

S-VHS 4 head Hi Fi with jog shuttleCALL!

Panasonic
PV-S4566

LOWEST PRICE EVER!



Shuttle control/VCR Plus+/Front-mounted A/V input

VIDEONICS

AB Roll Edit Controller



AB-1

Edit Suite is a technological breakthrough in A/B roll editing.

Brand Name TVs!



13"-35" - CALL!

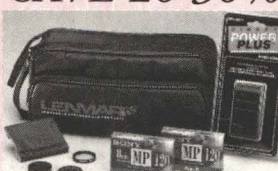
We Make It Easy For You.
Call Us For Your

FINAL DELIVERED PRICE

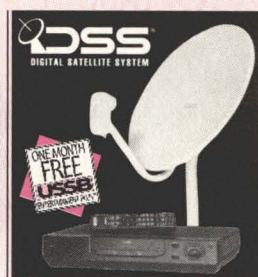
On All Camcorders,
VCR's & Hi Fi Equipment.

Camcorders Starter Kit!

SAVE 20-30%



Available for most camcorders!



SPECIAL HOLIDAY PRICING

Panasonic
PV-IQ405

- Image Stabilization
- 20x Digital Zoom
- Built in Light

Super Low Price

JVC
GR-AX900U

Color Viewfinder

- Image Stabilization
- 120x Digital Zoom

Also Available:
• GR-AX800U.....CALL
• GR-AX700U.....CALL

Panasonic
LX 900

With FREE Laser Disc Movie Thru 1/31/96

- Advanced Time Base Corrector
- Auto Reverse

Panasonic

INDUSTRIAL CAMCORDERS

AG-45612X zoom

AG-33 chip/SVHS

AG-12804 head

AG-1980w/ 2 line TBC

AGA96controller

MONITORS

CT-1384Y13" video monitor

CT-1384VY13" w/ tuner

CT-2084Y20" video monitor

CT-2084VY20" w/ tuner

AV MIXERS

WJ-MX30digital field synch.

VIDEONICS

MX-1digital mixer
TM-2000TitleMaker 2000
VE-1Video Equalizer
TU-1Thumbs Up
SE-1Special Effects Mixer
AB-1A/B Roll Controller

SONY

SPECIAL PRICE!

EDITING DECK

EVO-9800A\$3,999

EVO-9650\$2,799

PROFESSIONAL & DESKTOP VIDEO

Canon

ES5000.....CALL
ES2000CALL
ES800Image stable

SAMBICO

ACCESSORIES
VO990Lens guard kit 52,49,46mm
VO890Lens guard kit 37,34,30,5mm

JVC

CAMCORDERS

GR-SZ9USuper VHS/FREE NEW!
GR-AX700NEW!
GR-AX800shuttle control
GR-AX900NEW!
GR-SV3w/LCD monitor

SUPER LOW PRICE!
HR-S5200 SVHS VCR
With 2 Free Movies

JVC VCR's

HR-J620U4 head Hi Fi
HR-J616Ujog shuttle/audio dub
HR-VP624Ushuttle control
HR-VP628UVCR Plus/jog
HR-VP720UNew New New

Panasonic

CAMCORDERS, C-FORMAT

PV-IQ20514:1 200m
PV-IQ305Color viewfinder
PV-IQ405Image stabilization
PV-IQ505As above w/ color VF
PV-S64Super VHS

FULL SIZE

PV-940w/FREE case
PV-950Color viewfinder
PV-S770Super VHS

TV/VCR COMBO

PV-M132413" combo
PV-M134513" w/4-Head VCR
PV-M1355As above - white
PV-M204420" combo
PV-M206520" w/Hi Fi VCR

Panasonic

ACCESSORIES

W JAVE5A/V Mixer
W JAVE7NEW
WJTL7LTitler

VCR's

PV-45144-Head VCR Plus+
PV-45514-Head Hi Fi
PV-4561As above w/ VCR Plus+
PV-4562Dynamorphous heads
PV-45644-Head Hi Fi, jog/shuttle
PV-S4366Super VHS - LOW PRICE!
PV-S4566NEW! NEW!
PV-S4580NEW! NEW!

LASER DISC PLAYERS

LX-H170CALL
LX-H670CALL
LX-900CALL

LENMAR **\$24.95**
NOMEM BATTERY Fully Sony Compatible!

AZDEN

MICROPHONE
WMS-PRO2mic system
WHX-PROhand held

TOSHIBA

VCR's

M-7816 Head/Digital Noise Reduction
M-7616 Head/VCR Plus
M-7516 Head/Shuttle Control
M-6714 Head Hi-Fi/VCR Plus
M-6614 Head Hi-Fi

sima

SPM-EUniversal car cord
SPM-3Charger / reconditioner
SRW-818mm rewinder
SFX-LControl L editor
SFX-4Special effect / sound mixer

All camcorders shipped:
P.O. Box 17882
Milwaukee, Wisconsin 53217

• One of Wisconsin's Top 10 Woman Owned Businesses
• Corporate, Government & School POs Welcome
• Tech: (414) 357-8181 • No surcharge for credit cards
• No extra charge for insurance • No extra charge for delivery
• On VCR's and Camcorders! • Non defective merchandise returned for refund will be subject to a 15% restocking fee



Panasonic Demos & Refurbs

Camcorders (Delivered Prices)

PV-IQ 504 Image Stable\$679.95
PV-IQ 604 Color Viewfinder\$699.95
PV-S63 SVHS\$899.95
PV-940 Full Size\$539.95

Laser Disc

LX-900\$689.95

FULL MANUFACTURER WARRANTY

SOLD BELOW COST!

VCR's (Delivered Prices)

PV-S 4566 - SVHS\$349.95
PV-S 4380 - SVHS\$599.95
PV-S 4480 - SVHS\$599.95
PV-4414 - 4 Head\$299.95

K=GA6

Please reference this code when ordering by phone or fax.

Hrs (CST): M-F 8am - 8pm, Sat. 9am - 5pm • Tech Info 1pm - 5pm (414) 357-8181 • Fax (414) 357-7814

CIRCLE NO. 85 ON READER SERVICE CARD

One Call



GETS IT ALL!

from the
'West'

AUDIO

AV Receivers
Separates
Speakers
CD's
Book Shelf
Car
Portable
AC3-THX
Pro Logic
Interconnects



VIDEO

DSS
Camcorders
VCR's
TV's
Home Theater
Projection
Laser
Videonics

PRICE ♦ DELIVERY ♦ SERVICE

1-800-663-5255

FAX: (509) 838-4387

onecall@iea.com

www.onecall.com

7 Days a Week - 7am to 6:30pm PST
418 W. Riverside - Spokane, WA 99201



P.O.'s ACCEPTED

CIRCLE NO. 42 ON READER SERVICE CARD

"SHOPPING WITH US IS AS PLEASANT AS A WALK IN THE PARK"

MARINE PARK

CAMERA & VIDEO INC.

TO ORDER TOLL FREE CALL!

BUSINESS HOURS

Mon-Thurs Until Dec 22 9:30am to 10:00pm
Mon-Thurs After Dec 22 9:30am to 8:00pm
Friday 9:30am to 4:00pm
Sunday 10:00am-7:00pm
Sat. Eve Until Dec 22 6:15pm-10pm
3126 AVENUE U
BKLYN, NEW YORK 11229



1-800-448-8811

INQUIRIES ON ORDERS PLACED ALREADY ONLY LOCAL & OVERSEAS CALL
TOLL FREE 1-800-360-1722 718-891-1878

WE ACCEPT ALL
MAJOR CREDIT CARDS
WITH NO SURCHARGE!

WE SHIP WORLDWIDE! OVERNIGHT SHIPPING AVAILABLE!

SONY

Special Offer: To extend your warranty coverage to 5 years, add an additional \$199.00 to any listed camcorder price!

CCD-TR400\$699.99
COLOR VIEWFINDER
IMAGE STABILIZER

CCD-TR700\$989.99
HI-8MM COLOR VIEWFINDER
IMAGE STABILIZATION, RC TIME CODE

CCD-TRV30\$674.99
STEREO HANDYCAM OPTICAL IMAGE
STABILIZATION COLOR VIEWFINDER

CAMCORDERS

CCD-TR23454.99
CCD-TR33474.99
CCD-TR73539.99
CCD-TR83579.99
CCD-TR93649.99
CCD-TR100659.99
CCD-TR600799.99
CCD-TRV30674.99
CCD-TRV40834.99
CCD-TRV701279.99
CCD-VX3CALL
CCD-TR3000CALL
CCD-FX630509.99
CCD-FX730V629.99
CCD-SC5569.99
DCR-VX700CALL
DCR-VX1000CALL

CALL FOR PAL SYSTEMS

JVC

GR-AX 900\$619.99

GR-S291069.99
GR-SV7CALL
GR-SZ7939.99
GR-AX 700474.99
GR-AX 800544.99
GR-AX 850479.99
GR-AX 200459.99
GR-AX 750574.99
GR-SV3524.99
GR-EZ1369.99

JVC PROFESSIONAL

SR-S360 Super VHS VCRCALL
BR-S378U Super VHS VCRCALL
TM-900 SU MonitorCALL
TM-9U MonitorCALL
TM-130 SU MonitorCALL

SHARP

VL-H410U1349.99
VL-H400U1099.99
VL-E47UCALL
VL-E43UCALL
VL-E42U819.99
VL-E37UCALL
VL-E36U589.99
VL-E33UCALL

VL-E32U589.99
VL-L95UCALL
VL-L94U549.99
VL-L65UCALL
VL-L64U479.99
VL-L490UCALL
VL-H420UCALL
VL-H450UCALL

VIDEO ACCESSORIES

INDUSTRIAL 2 HR AND 5 HR VIDEO BATTERIESCALL
H.Q. SOFT VIDEO BAGS29.99 AND UP
3 PIECE FILTER KITCALL
REWINDERS VHS 8MM AND BE TA29.99
WIDE ANGLE & TELEPHOTO LENS KIT99.99
HI RESOLUTION WIDE ANGLE TELEPHOTO LENS KITCALL
HEAD CLEANING KIT9.99
FULL SIZE TRIPODS29.99 AND UP

ASK ABOUT 3 AND 5 YEAR
EXTENDED WARRANTY PLANS

SONY

VCR'S

HR-S7200CALL
HR-S7100539.99
HR-S5200469.99
HR-VP220324.99
HR-VP268294.99
HR-VP262259.99
HR-VP422184.99
HR-J620229.99
HR-J420169.99
HR-J220174.99
HR-A61229.99
HR-A41169.99
HR-A21159.99

TV/VCR COMBO

PV-54580639.99
PV-4570CALL
PV-54566339.99
PV-54564289.99
PV-4562259.99
PV-4561229.99
PV-4551229.99
PV-4514194.99
PV-4511179.99
PV-4501164.99
PV-2501159.99

RECEIVERS

RX-317TN139.99
RX-517 VTN204.99
RX-717 VTN279.99
RX-817 VTN339.99

CASSETTE DECKS

TD-W12TN139.99
TD-W31TN144.99
TD-W71TN199.99
TD-R461TNCALL
TD-V661TN224.99

CD'S

TD-V661TN219.99
TD-R461TNCALL
TD-W709TN199.99

TELEVISIONS

AV-27 BM5379.99
AV-27 74CALL
AV-27 BP5439.99
AV-31 BM5649.99
AV-31 BP5CALL
AV-35 BP51249.99
AV-35 BX5CALL

Prices valid only through the corresponding Magazine issue. All merchandise is brand new. To Order Use any major credit card. COD's are welcome or send a money order, certified check or cashiers check. Please allow 4 weeks for Personal Call. Call for Shipping & Handling charges. Any refunds or exchanges must be made within 14 days, of receipt of goods. All refund are subject to a 5% restocking fee. Shipping and Handling fee is non-refundable. All returns, must be in original mint condition with original packing and unexpired warranty. Manufacturers box must be clean of any tape, writing or mutilation. No exceptions. These are phone and mail order prices only. Store prices and availability are different. If you wish to come into the store, please call ahead to check on availability and to reserve merchandise with salesperson. Some products carry international warranties. USA warranted products vary in cost. Quantities are limited. Not responsible for typographical errors. Prices are valid only and of Monthly issue and are subject to verifiable Manufacturer's price changes. We reserve the right to limit quantities.

HITACHI

VM-E58ACALL

COLOR VIEWFINDER, STABILIZATION, 24-1 ZOOM

VM-H100LACALL
VM-H18ACALL
VM-H18ACALL
VM-3800ACALL
VM-2800ACALL
VM-1800ACALL
VM-H59ACALL

CALL

VM-H38ACALL
VM-H710ACALL
VM-E510ACALL
VM-E10ACALL
VM-E301ACALL
VM-E110ACALL

Panasonic

CALL FOR LATEST PANASONIC MODELS

VHS-C

PV-54799.99
PV-S64989.99
PV-IQ205444.99
PV-IQ305479.99
PV-IQ405529.99
PV-IQ505574.99
PV-D705789.99
PV-DV100CALL

FULL SIZE VHS

PV-910CLOSEOUT 399.99
PV-940449.99
PV-950509.99
PV-960554.99
PV-S770864.99

SHARP

ES 1000CALL

HI-8 Stabilization, Color Viewfinder

NEW ES 5000CALL
NEW ES 20001049.99

ES 5000CALL
ES 20001049.99
L-22249.99
ES-800CALL
ES-750CALL
ES-80CALL
UC-S5989.99

RECEIVERS

STR-D 565184.99
STR-D 665214.99
STR-D 865279.99
STR-D 1015389.99

LASER DISCS

MDP-565369.99
MDP-650564.99

CASSETTE DECKS

TC-WR 34599.99
TC-WR 365CALL
TC-WR 445124.99
TC-WR 465129.99
TC-WR 565154.99
TC-WR 665209.99
TKR-815259.99

TELEVISIONS

MHC-C305299.99
MHC-C405364.99
MHC-C505429.99
MHC-C605479.99
MHC-C6XEX719.99
MHC-C6XPKG1279.99

MINI COMPONENT SYSTEMS

RV32XB371149.99
RV32151749.99
RV41XPKGCALL
RV27V5CALL
RV27M10249.99
RV27S10449.99
RV27S15469.99
RV27V10CALL
RV32V15CALL

RECEIVERS

VSX-D3S1089.99
VSX-D903S669.99
VSX-D704S524.99
VSX-604S344.99
VSX-504S274.99
VSX-454204.99
SX-303R149.99
SX-253R139.99
SX-203R119.99

TELEVISIONS

CLD-D704689.99
CLD-D604579.99
CLD-D504529.99
CLD-S304289.99
CLD-S104224.99
CLD-V860 KaraokeCALL
CLD-V850 Karaoke649.99
CLD-V750 Karaoke479.99

CD PLAYERS

PD-F1004399.99
PD-F804314.99
PD-S1274.99
PD-AP1 CONTROLLERCALL
PD-TM3289.99
PD-DM802199.99
PD-M703189.99
PD-M603139.99
PD-M423134.99

CASSETTE DECKS

CT-W704RS189.99
CT-W604RS139.99
CT-W504R129.99
CT-W404R119.99

Prices valid only through the corresponding Magazine issue. All merchandise is brand new. To Order Use any major credit card. COD's are welcome or send a money order, certified check or cashiers check. Please allow 4 weeks for Personal Call. Call for Shipping & Handling charges. Any refunds or exchanges must be made within 14 days, of receipt of goods. All refund are subject to a 5% restocking fee. Shipping and Handling fee is non-refundable. All returns, must be in original mint condition with original packing and unexpired warranty. Manufacturers box must be clean of any tape, writing or mutilation. No exceptions. These are phone and mail order prices only. Store prices and availability are different. If you wish to come into the store, please call ahead to check on availability and to reserve merchandise with salesperson. Some products carry international warranties. USA warranted products vary in cost. Quantities are limited. Not responsible for typographical errors. Prices are valid only and of Monthly issue and are subject to verifiable Manufacturer's price changes. We reserve the right to limit quantities.

Panasonic

CALL FOR LATEST PANASONIC MODELS

VHS-C

PV-54799.99
PV-S64989.99
PV-IQ205444.99
PV-IQ305479.99
PV-IQ405529.99
PV-IQ505574.99
PV-D705789.99
PV-DV100CALL

FULL SIZE VHS

PV-910CLOSEOUT 399.99
PV-940449.99
PV-950509.99
PV-960554.99
PV-S770864.99

SHARP

ES 1000CALL

HI-8 Stabilization, Color Viewfinder

NEW ES 5000CALL
NEW ES 20001049.99

ES 5000CALL
ES 20001049.99
L-22249.99
ES-800CALL
ES-750CALL
ES-80CALL
UC-S5989.99

RECEIVERS

STR-D 565184.99
STR-D 665214.99
STR-D 865279.99
STR-D 1015389.99

LASER DISCS

MDP-565369.99
MDP-650564.99

CASSETTE DECKS

TC-WR 34599.99
TC-WR 365CALL
TC-WR 445124.99
TC-WR 465129.99
TC-WR 565154.99
TC-WR 665209.99
TKR-815259.99

TELEVISIONS

MHC-C305299.99
MHC-C405364.99
MHC-C505429.99
MHC-C605479.99
MHC-C6XEX719.99
MHC-C6XPKG1279.99

MINI COMPONENT SYSTEMS

RV32XB371149.99
RV32151749.99
RV41XPKGCALL
RV27V5CALL
RV27M10249.99
RV27S10449.99
RV27S15469.99
RV27V10CALL
RV32V15CALL

RECEIVERS

VSX-D3S1089.99
VSX-D903S669.99
VSX-D704S524.99
VSX-604S344.99
VSX-504S274.99
VSX-454204.99
SX-303R149.99
SX-253R139.99
SX-203R119.99

TELEVISIONS

CLD-D704689.99
CLD-D604579.99
CLD-D504529.99
CLD-S304289.99
CLD-S104224.99
CLD-V860 KaraokeCALL
CLD-V850 Karaoke649.99
CLD-V750 Karaoke479.99

CD PLAYERS

PD-F1004399.99
PD-F804314.99
PD-S1274.99
PD-AP1 CONTROLLERCALL
PD-TM3289.99
PD-DM802199.99
PD-M703189.99
PD-M603139.99
PD-M423134.99

CASSETTE DECKS

CT-W704RS189.99
CT-W604RS139.99
CT-W504R129.99
CT-W404R119.99

Prices valid only through the corresponding Magazine issue. All merchandise is brand new. To Order Use any major credit card. COD's are welcome or send a money order, certified check or cashiers check. Please allow 4 weeks for Personal Call. Call for Shipping & Handling charges. Any refunds or exchanges must be made within 14 days, of receipt of goods. All refund are subject to a 5% restocking fee. Shipping and Handling fee is non-refundable. All returns, must be in original mint condition with original packing and unexpired warranty. Manufacturers box must be clean of any tape, writing or mutilation. No exceptions. These are phone and mail order prices only. Store prices and availability are different. If you wish to come into the store, please call ahead to check on availability and to reserve merchandise with salesperson. Some products carry international warranties. USA warranted products vary in cost. Quantities are limited. Not responsible for typographical errors. Prices are valid only and of Monthly issue and are subject to verifiable Manufacturer's price changes. We reserve the right to limit quantities.

INDUSTRIAL LINE

NEWAG-4561629.99
AG-455CALL
AG-196CALL
AG-195879.99
AG-188529.99
AG-187469.99
AG-32149.99
AG-DP800 3 Chip SupercamCALL

VCRS

AG-W11489.99
AG-S7001174.99
AG-1980CALL
AG-19701049.99
AG-1290209.99
AG-1300CALL
WJ-MX50CALL
WJ-MX301739.99
WJ-AV7819.99
WJ-TTL7259.99
AG-A56349.99
CT-134V254.99
CT-134VY289.99

SHARP

PRO 942CALL

PRO 932CALL
PRO 884HBCALL
PRO 846CALL
PRO 844CALL
CC414CALL

CC-620CALL
CC-616CALL
CC-612CALL
CC-422CALL
CC-420CALL

Nikon

VN-400CALL

STABILIZATION, 12:1, 470,000 PIXELSCALL
VN-360CALL
VN-400CALL

MINOLTA

C-552CALL

COLOR VIEWFINDER
BUILT IN LIGHT
12:1 ZOOM
CALL FOR PRICE!

C-532CALL

VHS-C CAMCORDER
12:1 ZOOM
QUICKER RESPONSE
AUTO FOCUS
CALL FOR PRICE!

TELEVISIONS

VTF 181TOP
VTF 282RATED
VTF380VCRS
VTF 382CALL
VTF 482FOR LOWEST
VTF 772PRICES!

TELEVISIONS

48BX3BCALL
48BX4KCALL
48V13KCALL
50DX6KCALL
50UX14BCALL
60SX4KCALL

RECEIVERS

VSX-D3S1089.99
VSX-D903S669.99
VSX-D704S524.99
VSX-604S344.99
VSX-504S274.99
VSX-454204.99
SX-303R149.99
SX-253R139.99
SX-203R119.99

TELEVISIONS

CLD-D704689.99
CLD-D604579.99
CLD-D504529.99
CLD-S304289.99
CLD-S104224.99
CLD-V860 KaraokeCALL
CLD-V850 Karaoke649.99
CLD-V750 Karaoke479.99

CD PLAYERS

PD-F1004399.99
PD-F804314.99
PD-S1274.99
PD-AP1 CONTROLLERCALL
PD-TM3289.99
PD-DM802199.99
PD-M703189.99
PD-M603139.99
PD-M423134.99

CASSETTE DECKS

CT-W704RS189.99
CT-W604RS139.99
CT-W504R129.99
CT-W404R119.99

Prices valid only through the corresponding Magazine issue. All merchandise is brand new. To Order Use any major credit card. COD's are welcome or send a money order, certified check or cashiers check. Please allow 4 weeks for Personal Call. Call for Shipping & Handling charges. Any refunds or exchanges must be made within 14 days, of receipt of goods. All refund are subject to a 5% restocking fee. Shipping and Handling fee is non-refundable. All returns, must be in original mint condition with original packing and unexpired warranty. Manufacturers box must be clean of any tape, writing or mutilation. No exceptions. These are phone and mail order prices only. Store prices and availability are different. If you wish to come into the store, please call ahead to check on availability and to reserve merchandise with salesperson. Some products carry international warranties. USA warranted products vary in cost. Quantities are limited. Not responsible for typographical errors. Prices are valid only and of Monthly issue and are subject to verifiable Manufacturer's price changes. We reserve the right to limit quantities.

CIRCLE NO. 7 ON READER SERVICE CARD

THE ELECTRONIC MAILBOX

THE VIDEO EDITING & PRODUCTION EXPERTS

WE KNOW OUR STUFF
staff of courteous, informative, sales professionals

10 DAY MONEY BACK 30 DAY
TRADE-IN GUARANTEE POLICY

10-12 Charles St, Glen Cove, NY 11542 FAX 516-671-3092 • TECH ADVICE HOTLINE 516-759-1943

JVC



JXED-11
The World's Easiest Editor!
If you can press a button, you can edit a video! New JVC editor is completely wireless-IR remote controlled! Exclusive Jog Locator Dial helps locate & rearrange scenes. No hook-up. Edit anywhere, anytime! Works with all formats inc. S-VHS & Hi8. **\$99⁹⁵**



JXT66
Compact Video Titler
The lowest priced titler ever offered! Features 4 type sizes, 8 page memory, scroll and zoom in/out. Plus, it works with all formats including S-VHS! AC/DC **SALE \$99⁹⁵** (reg \$119⁰⁰)



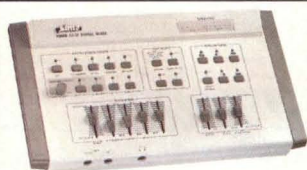
JXSV55
Ultimate S-VHS Production Center
Special Effects Generator - 16 wipe patterns & fade to 8 colors. High resolution Color Processor with joystick control. Video Enhancer for sharper images. Hi-Fi Stereo 3 channel audio mixer. 2 inputs/ 2 outputs plus switchable monitor out. Works with all formats, including SVHS/Hi8 **SALE \$399⁰⁰**



Remote Control A/V SVHS Switcher
3 SVHS/A/V in & out
Y/C separator Video amp with 800 lines resolution **\$249⁰⁰**



JXS700
Deluxe Remote Control SVHS Switcher
7 in, 4 out plus monitor out Y/C separator Video amp with 960 lines resolution 2 signal paths for simultaneous dubbing or viewing A/V processor loops **\$499⁰⁰**



DESKTOP VIDEO EDITING-without the computer!
DISSOLVES... A/B WIPEs... CHROMA KEY... AND MORE
Studio style transitions & incredible special effects in one affordably priced, easy to use package! Built in Time Base Corrector (TBC) provides true dissolves and A/B wipes from one moving picture into another. Real Blue Screen Chroma Key superimposes onto moving background image. Hundreds of digital special effects including strobe, paint, color negative... & colorful wipes and fades! Stereo audio mixer. Works with all formats, incl. SVHS/Hi8. **\$599⁰⁰**



SFX-L
Automatic Control L Editor & Special Effects Generator

Automatically edits your videos w/color fades & wipes & audio mixing. Preprogram Edit Decision List w/ 23 scenes. On-screen display lists the in & out, transitions & elapsed time. Requires Sony or equiv. Control L camcorder. S-VHS/Hi8 compatible. **SALE \$179⁰⁰** (reg \$249⁰⁰)



Color Titler w/ Special Title Effects
Put your titles into motion & create unique Hollywood effects. Full size keyboard, S-VHS & Hi8 compatibility, 12 page memory, 8 colors, 4 sizes, outlining & boxing. **SALE \$199⁰⁰** (reg \$249⁰⁰)



Special Effects Editor & Sound Mixer

Complete creative editing center with color wipes, partial wipes, inverse, reverse, crossfades etc. Over 100 wipe patterns. Crossfades one input into next. Variable wipe & fade speed. Stereo sound mixer. 2 in/ 2 out SVHS/Hi8 compatible. **Now \$199⁰⁰**

AMBICO V6350 **Color Titler**

SALE \$149⁰⁰ (reg. \$179⁰⁰)
Superimpose titles over live video or on B&W background. Features 8 colors, 2 fonts, 4 sizes & 3 borders. Titles can wipe in/out, scroll up/down, crawl & flash. 10 page memory.



Audio Video Processor
\$149⁰⁰
V6321
Improves picture quality during playback or editing. Includes luminance, enhancer & color gain controls, DNR, 3 channel audio mixer with LEDs, & audio and video fade controls. Includes free headset/boom mic.

CASIO VM50

1.8" TFT Active Matrix LCD Video Monitor

For the sharpest, clearest LCD picture available today. Casio patented TFT active matrix technology provides a fantastic picture with phenomenal color quality & clarity. Includes monitor stand, sun resistant screen, A/V card & lens cap.



Sale \$188⁰⁰ (reg. \$199⁰⁰)

Color Video Printer

Print Images Right Off Your TV Screen!

Print beautiful, clear images from home movies, video tapes & TV shows. You can even make stickers, cards & posters of the video images! Take a photo of anything on screen, easily. Make a photo of a favorite scene from your party or wedding or make an album of prints from videos of the kids!



SALE \$499⁰⁰ (reg \$599⁰⁰)



LENMAR
NOMEM™ BATTERY NO MEMORY CAMCORDER BATTERIES

No memory batteries offer a full charge everytime! Carefree, no worry! Available for all major brands. **\$49⁹⁵**



"The Swiss Army Charger"

BCR262 Automatically reconditions & charges two 6v batteries, incl. NoMEM. Plus-4 level LED battery tester & Power Supply. AC/DC **\$79⁹⁵**

Also Available: BCR10 Charger/Reconditioner for 9.6, 10, & 12v batteries, AC/DC **\$79⁹⁵**

LED65



NoMEM Camcorder Battery Belt Packs w/ LED
LED65 6.5AH Runs camcorder approx. 5 hrs. **\$69⁹⁵**
LED100 10AH Runs camcorder approx. 7 hrs. **\$99⁹⁵**
Also available: LP650 6.5AH 12v **\$69⁹⁵**

New! **SUNPAK** MEMORY-FREE

Memory Free
Nicad Battery with Lifetime Warranty
RB70UL High capacity (2000mAh) gives up to 2 hrs. for 8mm & VHS-C camcorders from Sony, Pana, JVC and Sharp. Features 3 stage LED indicators. **\$49⁹⁵**
Also Available: RB80UL-Same as above with ultra high capacity (2700 mAh) **\$69⁹⁵**



RB-70UL

SUNPAK



CZ-200A
Cordless VideoLight with Auto Sensor, Zoom & Tilt Head. Includes battery & charger **\$69⁹⁵**
RL-20 compact light **\$29⁹⁵**



Mount your camcorder on Sunpak's pan head, place on tripod & get in the action with everyone else! Infra-red signal controls pan & tilt plus lens zoom & record/pause of Sony, JVC, Hitachi & Canon camcorders. Powered by 6v battery (not included) **\$149⁰⁰**
RS200W Optional 20' remote sensor cord **\$24⁹⁵**

Remote Control Auto Pan/Tilt Head

AP-200W

SLIK

Includes ultra-smooth fluid pan head, gear drive & positive elevation center column. Opens to 55" **\$29⁹⁵**
Also available: SD8000 Deluxe model opens to 59" **\$49⁹⁵**



U6000

AVERMedia DESK TOP VIDEO

Aver Video Editor

FAST

The Art of Digital Video.

Movie Machine Pro
Turn your PC into a state-of-the-art digital video mixer & titler for under \$500

18 A/B roll video effects, Chroma & Luma keying & more! Built in TV tuner, Framegrabber import titles & graphics from any Windows application & overlay them on video.



ON SALE
\$449⁰⁰

Movie Line Motion JPEG Bundle

AFFORDABLE...Non-Linear Editing on your hard drive
Using high-quality Motion-JPEG compression, this hybrid system gives you non-linear editing &/or real time digital effects. Bundle includes MM Pro, M-JPEG card plus Adobe Premier 4.0LE & Photoshop LE, Autodesk Animator Pro CD & Xing MPEG Conversion software.

Complete bundle only **\$879⁰⁰**

FPS60 SVHS Hi Resolution Non-Linear Editing System!

Turn your home PC into a state-of-the-art digital video production studio. Create commercials, highlight films, music videos and more! Video capture at up to 320x480, 30 frames & 60 fields per second. Integrated single board solution for super easy installation. Includes Adobe Premiere 4.0 LE & Photoshop LE, and Xing MPEG Encoder software.

Works with SVHS & Composite Systems

\$849⁰⁰

Fast Video Machine Lite A/B Roll Editing Suite w/ Edit Control and DVE Effects!!

Fully integrated system blows away higher priced component editing suites. Everything you need in one ISA card. Can be used for A/B roll, A/X roll & audio/video split editing. Supports LANC (Sony Control L), Control M (Pana 5 pin). The ultimate multi-source editing system, supports VITC, RCTC, Rapid, or CTL timecodes. Includes 2 integrated frame synchronizers and over 200 pre-programmed real time digital video mixing effects. Video processing adjusts contrast, brightness, & saturation. Create titles, logos & graphics in any Windows appl. **SALE \$2275** including cables

Multi I/O (RS232/422) \$2750⁰⁰



DTV prices fluctuate. Call for current quote.

GOLD DISK VideoDirector Suite



The #1 Home Video PC Editor

Turns your PC, camcorder & VCR into a complete video editing system. Choose the shots, drag & drop into order & press "Make Tape" for automatic assembly. Available for PC or Mac.

\$99⁹⁵

Ulead Systems MediaStudio Pro 2.0 Advanced Non Linear Editing Software

Create full motion digital videos with one fully integrated program. Catalog, edit, add special effects filters, morph, and warp as well as combine video, animation still images, anti-aliased titling, and audio, all with point and click ease.

*(software only -requires video capture card)

Special - \$20 off MediaStudio Pro with any additional DTV purchase

SALE \$299⁹⁵

Quadrant Q Motion 100 Capture video at full-speed (60 fields/second) in full-screen resolutions (640x480) for under \$500!!

Capture, edit & output high-quality digital video at a low cost. Powerful bit-rate control & custom media stream bus lets you optimize the card to match your system & hard drive performance, guaranteeing high-quality results from any system. Incoming video can be displayed in real-time on an external monitor or TV via composite or SVHS output of card. May be displayed on computer monitor, at a reduced frame rate.

\$499⁰⁰

Q-Motion 150: Complete bundle including Adobe Premiere 4.0 LE & Photoshop LE & CeQuadrat PixelShrink MPEG Encoder software. **\$679⁰⁰**



CARDCAM VIDEO-IN

Now you can capture video with your Laptop or Notebook

computer! High quality still image & video capture card for PCMCIA Type II equipped computers! True color frame grabbing & video capture (15 Fps, 320x240 resolution), plus all the software you need to capture video to your harddrive!

NEW! \$379⁰⁰

AZDEN



Use two wireless mics at the same time! The Azden WR2PRO two channel receiver automatically mixes the sound from both mics. Let us design the perfect two mic system for your needs. Complete systems including WR2PRO & two wireless mics. **\$399⁰⁰ & up**

WR2PRO receiver **\$189⁰⁰**

Mic Mixer

Record and mix sound from 3 sources, while shooting! Connect 2 mics plus background music to your camcorder's audio.



\$55⁰⁰ CAM3

WLXPRO

Professional VHF Wireless Mic System
250' Range

\$149⁰⁰

WHXPRO-Wireless Handheld VHF Pro Mic System **\$189⁰⁰**



ECZ 990 Picks up sound in front without side noises. 2 position zoom/wide. **\$69⁹⁵**



PRODUCER SERIES 111 VHF WIRELESS MICROPHONE SYSTEM

Delivers superior frequency response. Multiple channel operation - ten frequencies available. Features volume control & balanced/unbalanced output - interfaces with both video cameras & all sound systems. Flexible rubber antenna & squelch/mute

\$299⁰⁰ and up

Accessory Specials

Philips top quality SVHS cables with gold tip connectors insure a clear, beautiful picture.

SALE! 3' **\$7⁹⁵** (reg. \$14.95) 6' **\$9⁹⁵** (reg. \$19.95)

Attention Panasonic Owners:

The most popular Panasonic camcorder battery at the lowest price ever.

BP88 2.3 Ah

NOW \$29⁹⁵ ea or 2 for **\$49⁹⁵** (reg. \$49.95 ea)



SIMA PowerMax Pulse Charge

Reconditions & quick charges two 6V batteries in one cycle. Fastest charge with built in overcharge protection! AC/DC

SPM10

\$49⁹⁵

THE ELECTRONIC MAILBOX

THE VIDEO EDITING & PRODUCTION EXPERTS

800-323-2325

30 DAY MONEY BACK SATISFACTION ON ALL DTV PURCHASES

FREE DTV Tech Support (516) 759-1615
Email Questions to: videoguy@cris.com
Check Out our World Wide Website:
<http://www.cris.com/~videoguy/>

10-12 Charles St, Glen Cove, NY 11542 FAX 516-671-3092 • CODs Welcome

CIRCLE NO. 26 ON READER SERVICE CARD

DATAVISION

COMPUTER VIDEO
"The Intelligent Superstore"

445 FIFTH AVENUE (@39th St.) NY, NY 10016

800•482•7466

OVERNIGHT DELIVERY GUARANTEED-7 DAYS 8:30-10:00 P.M.
IN NY STATE 212•689•1111/24 HR FAX 212•689•1743

AUTHORIZED DEALER

SONY

AUTHORIZED DEALER



SONY



Authorized Dealer

AVAILABLE IN PAL

Video 8

Largest Selection Of:
Camcorders/Vcr's
Editing/Industrial
TV's/Video Printers
AV Laser's/Diskman's
Telephones/Walkman's
Short Wave Radio/DAT
Computer Products

ESP AVAILABLE
Extended Service Plan

RCA

CC620 VHS-C

- 120X ZOOM SYSTEM
- 1 LUX
- EIS/MOTION SENSOR
- COLOR VIEW
- BUILT-IN LIGHT

CC612 VHSCCALL
PRO 884HB Hi8CALL
CC420 VHSCALL
CC422 VHSCALL

SONY

GV-S50

8mm Video Walkman
Hi-Fi Stereo
VCR Deck w/ TV Tuner
Still and Slow Motion
4" Active Color Screen
Built-in Speaker

KV-13VM20 13" TV/VCR Combo
KV-20VM20 20" TV/VCR Combo

AUTHORIZED DEALER



CALL

CALL CALL

HITACHI

VM-E510A

- 24X1 ZOOM
- 1 LUX
- EIS/MOTION SENSOR
- COLOR VIEW
- AKELINE BATT CAPABILITY



VMH710A HI-8...CALL

VME-310A 8mm...CALL
VTS-772ACALL
VTF-382ACALL
VTF-494ACALL
VTF-392ACALL
VY170 PRINTER CALL

VME-410A 8mm CALL
VMH-38/39A HI-8CALL
VMH-81A HI-8mmCALL
VM-3700ACALL
VM-3800ACALL
VM2800ACALL

AUTHORIZED DEALER

ALL HITACHI BIG SCREEN
TV'S IN STOCK...CALL

SHARP JVC

VLH-450 Hi8

- 16X ZOOM
- 4" COLOR LCD SCREEN
- HI-FI STEREO

\$1349



VLH-410 IN STOCK

\$1279

AUTHORIZED DEALER

VLE- 37 3"LCD COLOR SCREEN..\$619

VLE- 47 4"LCD COLOR SCREEN..\$829

VLH-420.....\$1249

GR-SZ9

- S-VHSC
- 120X
- STEREO COLOR VF

GRS7 ALSO IN STOCK

AUTHORIZED DEALER

NEW GR-SZ7\$999

NEW GRAX-800/900CALL

GRAX-700 COLORCALL

GRAX-350 COLOR.....CALL

HRS-7200 SVHS\$599

HRS-5200 S-VHS\$549

HRVP-710 JOG.....\$359



miroVIDEO DC1 PLUS

Desktop Video Editing System for Windows

The video solution for real-time capturing and playback of video sequences. Includes video editing and photo retouching software

\$449

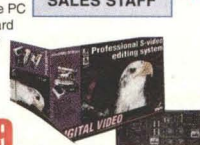
- Δ Capture digital VHS video to your hard disk
- Δ Transitions, titles, and special effects
- Δ Print to tape in full-size NTSC or PAL
- Δ ADOBE PREMIERE LE, Photoshop LE, Asymetrix 3D/FX

miroVIDEO DC20

- Δ PCI Board for digital S-Video on the PC
- Δ Motion JPEG compression onboard
- Δ 7:1 or greater compression factor
- Δ Professional editing with Adobe Premiere, Photoshop LE, Asymetrix 3D/FX
- Δ Full size and full S-Video print-to-video capability

\$999

SPEAK TO OUR TRAINED SALES STAFF



miroVIDEO 20TD LIVE

Desktop Video & Windows Acceleration

- Δ Live television on your PC
- Δ Captures full size single frames
- Δ Full motion video
- Δ Cd playback
- Δ PCI or VLB

miroVIDEO MOUSE

- Δ Player/Recorder Control via Jog Dial
- Δ High Precision Video Editing w/ TC
- Δ Frame Accurate Editing
- Δ Available for DC 1Plus & DC 20

\$399

Authorized Dealer



Panasonic

PVS-64 SVHS

- HI-FI STEREO
- STILL/STROBE
- 10:1 ZOOM
- COLOR VF

CALL

AVAILABLE IN PAL

PV-IQ505

- 14:1 POWER ZOOM
- EIS/COLOR VF
- 1 LUX

CALL

AUTHORIZED DEALER

PV-54 HI-FI STEREO\$829

PV-IQ604 COLOR VIEW\$699

PV-IQ505 NEW FOR '96\$649

PV-IQ305 NEW FOR '96\$499

PVD-705 VHS-C 410PIXELCALL

PV-940 VHS\$499

PV-S770 SVHSCALL



Canon

ES2000

- 20X OPTICAL ZOOM
- OPTICAL EIS
- CANON OPTICS
- FLEXIZONE AF/AE
- COLOR VIEW FINDER
- 64 ZONE AUTO WHITE
- 0 LUX

AUTHORIZED DEALER

ES800

- 12X ZOOM
- OPTICAL EIS
- CANON OPTICS
- 64 ZONE AUTO WHITE
- 0 LUX
- COLOR VF

ES5000

Hi-8 / EIS
COLOR VIEW / 40X
NEW FEATURE!
FOCUS ON WHAT YOU
LOOK AT !!!

L-2 PRO HI-8.....CALL

ES1000 HI-8.....CALL

MOVIEBOY.....CALL

ES-600 8mm.....CALL

ES-550 8mm.....CALL



CALL

ES-80 8mm.....CALL

ED-100 EDITOR..CALL

RU-100

ADAPTER.....CALL

ESP AVAILABLE
Extended Service Plan

FAST

Video Machine Lite

- Δ Edit Controller for A/B, A/X roll and audio/video split editing
- Δ Controls any VCR with control L
- Δ 200 digital effects
- Δ 2 independent video channels
- Δ No Time Based Correctors needed
- NEW MOVIE LINE.....\$899
- MOVIE MACHINE PRO...\$479

AUTHORIZED DEALER



AVER VIDEO SUITE

- WINDOWS BASED EDITING SYS
- VIDEO EDITING, 2D & 3D TITLING
- SPECIAL EFFECTS
- CURTAIN CALL ... TITLES, FADES, WIPES
- SVHS / HI-8 COM. WITH 1 MG RAM

\$579



FUTURE VIDEO

V-STATION

2200CALL
3300CALL
EC-1000 SERIES
PROMK2 ...CALL
PRO/CT ...CALL

AUTHORIZED DEALER

AVER

AVIX TECHNOLOGIES, INC.

AVER PRO

- DESKTOP VIDEO TITLING SYS
- SUPERIMPOSE TITLES, GRAPHICS AND TRANSITIONS OVER VIDEO
- 30 DIFFERENT WIPE PATTERNS

\$479

AVER VIDEO EDITOR

- FAMILIAR VCR STYLE CONTROLS
- 3 STEP EDITING
- STORYBOARD VIEW & TAPE LIBRARY
- DRAG AND DROP EDITING
- SPECIAL EFFECTS
- ON SCREEN DISPLAY & CAPTURE
- TIME CODE

CALL

RETURN OR EXCHANGE MAY BE MADE WITHIN 10 DAYS AFTER PRIOR AUTHORIZATION. ALL RETURNED MERCHANDISE MUST BE IN ORIGINAL NEW CONDITION AND INCLUDE BLANK WARRANTY. STANDARD SHIPPING MAY APPLY. THIS AD VALID FOR MONTH OF ISSUE. NOT RESPONSIBLE FOR TYPOGRAPHICAL ERRORS CUSTOMER SERVICE MON-FRI 10AM-5PM E.S.T. 2

VISIT OUR NEW 15,000 SQ.FT. COMPUTER/VIDEO SUPERSTORE LOCATED 445 5TH AVE NY, NEW YORK. (CORNER 39TH)
 FEATURING SONY INTERACTIVE•APPLE SHOWROOM•CELLULAR DEPT•DESKTOP VIDEO!

FULL SELECTION OF CELLULAR PHONES AND ACCESSORIES IN STOCK

Panasonic

BROADCAST & TELEVISION

AG-456

NEW PRODUCT

AG-DP800 SUPERCAM
 INDUSTRIAL S-VHS
 3-CCD DIGITAL PROCESSING CAMCORDER

WJ-AVE7
 WITH 2 PIP

WJ-MX30
AUTHORIZED DEALER

AG-1970
S-VHS DECK
AVAILABLE IN PAL

JOG SHUTTLE
 TIME BASE CORRECTION
 SYNCRO EDIT W/ AGA96 CONTROLLER

WJ-MX50 DIGITAL MIXER.....CALL
WD-5100H CAMERA.....CALL
AG-195 CAMERA.....\$999
AG-5700 EDITING VCR.....CALL
CT-1384Y COLOR MONITOR.....\$299
AG-EP60 COLOR PRINTER.....\$899

VIDEONICS

MX-1 MIXER **CALL**

TM-2000 TITLER
AUTHORIZED DEALER

THUMBS UP....CALL
 BOING BOX....CALL
 EQUALIZER....CALL
ALSO AVAILABLE IN PAL

NEW EDITSUITE AB-1
 AB ROLL EDIT CONTROLLER

SONY

AUTHORIZED DEALER

XV-D1000
 DIGITAL EFFECTS GENERATOR
 •Digital Frame Synchronizer
 •Double Frame Memory
 •Digital Y/C Separation
 •77 Wipe Patterns
 •Zoom, Mosaic, Multi-Pic., Strobe

XV-AL100
 VIDEO EDITING SYSTEM
 •All In One Style:
 Edit Controller, Titler, Audio Mixer
 •Auto Edit Programming
 •RC Time Code
 •Dual Mode Shuttle

RM-E1000T
 EDITING CONTROLLER
 •Controls Up To 3 Input Sources
 •A/B Roll for Multiple Player Edit
 •8mm RC Time Code
 •On Screen Menu
 •10 Page Digital Superimposer

RM-E700 EDIT CONTROLLER.....CALL

SIMA

SPM-4 **\$49**
 TWINCHARGER

PRO EDIT 5 **\$239**

SCREENWRITER.....\$79	COLORWRITER.....\$169
SED-COPYMASTER.....\$59	PRO EDIT 4.....\$179
PRO-EDIT3.....\$119	SPM 3.....\$39
PC VIDEO EDIT.....\$59	SPM 7 RECON.....\$39
NEW FX-L.....\$219	SPM 1 DC CHG.....\$39

AVAILABLE IN PAL

GlideCam **AUTHORIZED DEALER**
 1000 PRO STABILIZER
HOLDS ANY CAMERA UP TO 6LBS.
\$169

STEADICAM JR
 ALL ACCESSORIES IN STOCK
\$389
AVAILABLE IN PAL

VCRS VCRS VCRS VCRS VCRS

Panasonic

PV2501 2 HD VCR...CALL
 PV4501 4 HD VCR...CALL
 PV4551 4 HD VCR...CALL
 PVS4580 SVHS.....CALL

MITSHUBISHI

HS-U770.....CALL
 HS-U650.....FOR
 HS-U550.....LOW
 HS-U500.....PRICE

HITACHI

VTF294A.....CALL
 VTF392A.....FOR
 VTF494A.....LOW
 VTS772A SVHS.....PRICE

UNDERWATER
 DIVEBUDDY I,II,III
 FOR ALL SONY TR'S
 FULL LINE OF LIGHTS,
 AND ALL ACCESSORIES
 AMPHIBICO INC. **AUTHORIZED DEALER**

EWA MARINE
CAMCORDER HOUSINGS
 E176, E187, E174.....CALL
NIKONOS
 NIKONOS V W/35mm . \$649
SEA&SEA
 MOTORMARINE II.....CALL

HOME THEATRE

AVAILABLE FROM 2" TO 60" WIDE SCREEN

USSB
 YOUR #1 SOURCE FOR USSB DIRECT TV

PAL/SECAM MULTISYSTEM

Panasonic

AGW-1 MULTISYS

CAMCORDERS

8MM **VHSC**
SONY **PANASONIC**
HITACHI **JVC**
CANON **HIS & SVHS**

COMPUTERS

AUTHORIZED DEALER
IBM **NEC**
AST **COMPAQ**
COMPUTER

TOSHIBA
 DESKTOPS•NOTEBOOKS
 MULTIMEDIA•MEMORY
 NETWORKING•ACCESSORY

JVC

AUTHORIZED DEALER

JX-ED11

- WIRELESS EDITOR
- EDIT/ARRANGE
- S-VHS & HI-8

\$89

JXT-88 VIDEO TITLER S-VHS.....\$189
JXS-V65 EDITOR COL ENHANCER SPECIAL EFX.....\$329
JXT-88 VIDEO TITLER.....\$89

SUNPAK

APT-200 **\$139**
CZ-200A.....\$69

RB-80UL
 3 HOUR BATTERY
 LIFETIME WARRANTY FOR ALL CAMERAS
\$49

AZDEN **WR2-PRO SYSTEM** **\$359**
WMSPRO

WIRELESS MICS
 WHX-PRO.....\$179
 WR2-PRO.....\$179
 WR2-PRO SYSTEM.....\$359
 WMS-200.....\$89
 ECZ-990.....\$59

CITIZEN
M329 2.9" COLOR MONITOR
\$149
AVAILABLE IN PAL
 M938 3.9" MONITOR SYSTEM.....\$209
 ALL CITIZEN ACCESSORIES IN STOCK.....CALL

 **Authorized Reseller**

Free Tripod

AND CLEANING KIT WITH EVERY VIDEO PURCHASE

VISIT OUR SUPERSTORE
 445 5TH AVE. @ 39TH ST.
 NY NY 10016

800•482•7466



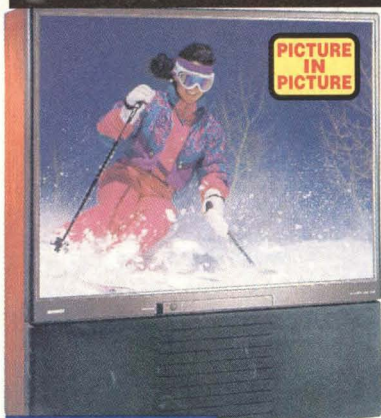
PRICE ISN'T EVERYTHING..

CHECK OUT OUR PRODUCTS, THE BRANDS WE OFFER, OUR

1-800-3

CALL FOR THE BEST PRICES!

TAKE AN 5% OFF



TOSHIBA

TP48D50

48" P-I-P PROJECTION TV

- Picture-In-Picture • Cable Compatible • On Screen Displays • Surround Sound • Remote

~~\$1699~~

COMPETITOR'S PRICE\$1999

MITSUBISHI	VS-5041	50"	STEREO P-I-P	1999
SONY	KP-46S55	46"	STEREO P-I-P	1699
ZENITH	PV-6069	60"	STEREO P-I-P	1999



SONY

KV-32V16

32" STEREO P-I-P TV

- 2-Tuner Picture-In-Picture • Matrix Surround Sound • Closed Caption • Color Pure Filter • Remote

~~\$949~~

COMPETITOR'S PRICE\$1199

SONY	KV-27S15	27"	STEREO P-I-P	499
MITSUBISHI	CS-3513	35"	STEREO P-I-P	1249
PANASONIC	CT-27SF12	27"	STEREO P-I-P	529

AUTHORIZED DEALER OF ...
PIONEER
 FULL LINE OF QUALITY ELECTRONICS



PANASONIC

PV-4562

4-HEAD HI FI STEREO VHS RECORDER WITH VCR PLUS

- Hi-Tech 4-Video System • English/Spanish On-Screen Displays • 181 Channel Cable Compatible • Digital Auto Tracking • Universal Remote Control

JVC	HRS-7200U	4 HEAD S-VHS HI-FI	CALL
SONY	SLV-640HF	4 HEAD HI-FI STEREO	299

~~\$279~~

COMPETITOR'S PRICE ...\$369

PANASONIC	PV-4562	4 HEAD HI-FI VCR+	299
SONY	SLV-780HF	4 HEAD HI-FI VCR+	369



PIONEER

CLDV-860

COMBO MULTI CD/LASER KARAOKE PLAYER

- 1 Bit DLC • Mic Included • One Touch Karaoke • Digital Echo • Remote Control

~~\$799~~

COMPETITOR'S PRICE ..\$1100



RCA

DSS COMPACT DIGITAL SATELLITE SYSTEM

IN STOCK



MULTI-SYSTEM SPECIALISTS

TELEVISIONS, VCRs, LASERS AND PAL CAMCORDERS
 110-220 VOLT • 50-60 CYCLE PAL-SECAM-MESECAM-NTSC-FORMAT



SHERWOOD

HTS-100

HOME THEATRE SYSTEM

- 1- Dolby® Pro-Logic AV Receiver
- 2- 6 1/2" Subwoofer
- 3- One Center Channel Speaker
- 4- 2 Front Satellites
- 5- 2 Rear Satellites
- 6- Remote Control

Competitor's Price...\$599

HOME THEATER PACKAGE

~~\$429~~

SAVE \$190



CCD-TRV30

8MM AUTO FOCUS CAMCORDER WITH 3" LCD COLOR VIEW SCREEN

- 12X Power Zoom Lens • 4 Mode Program AE • Low Light • A/V Digital Fader • Flying Erase Head • Wireless Remote

SONY

~~\$69~~

COMP. PRICE, \$899



PANASONIC

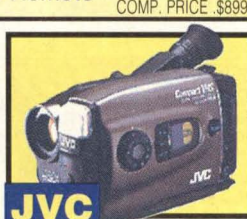
PV-IQ505

VHS-C AUTO FOCUS CAMCORDER

- 20X Digital Zoom • Low Light • High Resolution • Remote

~~\$599~~

COMPETITOR'S PRICE, \$899



JVC

GRAX-900U

VHS-C AUTOFOCUS CAMCORDER

- 120X Digital Zoom • Low Light • Image Stabilizer • Remote

~~\$699~~

COMPETITOR'S PRICE, \$899

JVC	GRAX-700U	VHS-C Autofocus	549
PANASONIC	PV1Q505	VHS-C Autofocus	599

PRICES VALID THRU 2/1/95. LIMITED QUANTITIES
 LABORATORIES CORP. PICTURES ARE FOR NOT RESPONSIBLE FOR TYPOGRAPHICAL ERRORS.

NEW JERSEY RETAIL
331 ROUTE 4 WEST
PARAMUS, NJ 07652
6 DAYS • SATURDAY 10-9
• MONDAY-FRIDAY 10-9:30

NEW JERSEY RETAIL
577 ROUTE 10 EAST
LIVINGSTON, NJ 07039
7 DAYS • MONDAY-FRIDAY 10-9:30
• SATURDAY 10-9 • SUNDAY 10-7

IT'S THE ONLY THING !!!

PRICES AND YOU'LL KNOW WHY **6TH AVENUE IS #1**

94-6283

MON-FRI 9-7 • SAT 10-6 • SUN 11-5

EXTRA OFF

SEE ADVERTISED ITEMS*



ONKYO

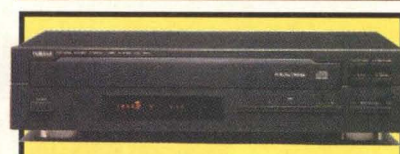
TX-SV727

DOLBY® PRO LOGIC RECEIVER

• 80W X 3 (Left, Right & Center) • 25W X 2 (Rear) • AM/FM Station Presets • Remote Control

~~\$549~~

COMPETITOR'S PRICE . \$750



YAMAHA

CDC-555

5 DISC CAROUSEL CD CHANGER

• D/A Converter • Programmable Play • Repeat & Random Play • Digital Servo System • Remote

~~\$199~~

COMPETITOR'S PRICE . \$249

BOSE

AM-7
200 WATT SUBWOOFER
SATELLITE SYSTEM

- Acoustimass Bass Module W/ Two 5 1/4" Woofers • 2 Satellites W/ 2 1/2" Drivers

MODEL 100
MULTI-PURPOSE
SPEAKER

- Ported Design
- 4 1/2" Woofer • 4 1/2" Full-Range Driver
- 80W Power Handling

COMPETITOR'S PRICE...\$1100

6 PIECE HOME THEATER SPEAKER PACKAGE

\$898*

SAVE \$200

OFFER ENDS JAN. 28

ALTEC LANSING

SYSTEM 3
3-PIECE SUB/
SATELLITE
SYSTEM

• Two 8" Woofers
• Two Satellite Speakers

~~\$299~~

COMPETITOR'S PRICE . \$600



SPECIAL BUY

JBL

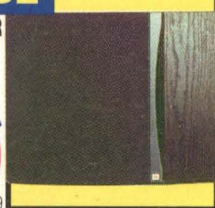
PSW-1200

12" SUBWOOFER

• 150W AMP
• Hi & Low Level Inputs • High Current Amp

~~\$369~~

COMPETITOR'S PRICE . \$599



Nakamichi
BLAUPUNKT

JBL



CANON

ES-5000
HI-8 AUTOFOCUS CAMCORDER

- 40X Digital Zoom
- Image Stabilization
- Color View Finder • Hi Resolution

IN STOCK



SONY

CCD-TR33
8MM AUTOFOCUS CAMCORDER

- 12X Power Zoom Lens
- Low Light
- Flying Erase Head
- Remote

\$499

COMPETITOR'S PRICE . \$699



DENON

AVR-2500

DOLBY® PRO LOGIC REMOTE RECEIVER

• 85W X 3 Front & Center + 25W X 2 Rear • DSP • 2 Center Channel • 32 Station Presets • Video Input Selections • On Screen Display • Remote

~~\$699~~

COMPETITOR'S PRICE ...\$899

KENWOOD • KRV-8070 120WX2 PRO LOGIC 445

SHERWOOD RV-6030R ... PRO LOGIC RECEIVER 325



VIDEONICS

EDIT SUITE
FULL FUNCTION VIDEO EDITOR

• 64-Color Titrer & Graphics
• Effects Generator
• 5-Pin Edit Control
• Super VHS And Hi 8 Compatible • Remote

IN STOCK

HI END ACCESSORIES

MONSTER CABLE
audioquest
FAIRCHILD
XLO
ESOTERIC
THX
STRAIGHT WIRE
NILES



BELL' OGGETTI

All home theater furniture accommodates up to a 35" Monitor, as well as 18 additional audio/video components. Made of the finest quality metal with high impact powder coated finish. Shelves are perforated metal or tempered safety glass.

FULL LINE IN STOCK

SONY
CCD-TR600
CCD-TR23

HI-8 Stereo HI-FI
8MM Autofocus 345
495

*REGISTERED TRADEMARK OF DOLBY
ILLUSTRATION ONLY. *EXCLUDES BOSE PRODUCTS.
STANDARD SHIPPING CHARGES APPLY.

NEW JERSEY RETAIL
22 ROUTE 22 WEST
SPRINGFIELD, NJ 07081
7 DAYS • MONDAY-FRIDAY 10-9:30
• SATURDAY 10-9 • SUNDAY 10-7

NEW JERSEY RETAIL
545 ROUTE 18 SOUTH
E. BRUNSWICK, NJ 08816
7 DAYS • MONDAY-FRIDAY 10-9:30
• SATURDAY 10-9 • SUNDAY 10-7

COLONEL VIDEO & AUDIO

HOURS: Monday - Saturday 8 am to 9 pm Sundays 10 am to 6 pm (CST)
24-Hour Order Processing-Friendly, Honest, Knowledgeable Staff • No Sales Tax Outside Texas!

AUTHORIZED DEALER



**New Models
Arriving Daily!!
Call for Models
Not Shown &
Today's Prices!!**

1-800-423-VCRS

Orders Only

8 2 7 7

1-800-VIDEO-97
843-3697
Repeat Callers

(713) 486-8866
Customer Inquiries
and Service

MAIL ORDER
FINANCING AVAILABLE

(713) 486-8300
24 Hour Fax Line

JVC



VHS-C Camcorders
GR-SZ29 GR-AX700
GR-AX900 GR-AX350
GR-AX800 GR-AX200

8 mm Camcorders
VM-E310A VM-H71A
VM-E410A VM-H81A
VM-E510A

Video Recorders

HR-A41U HR-VP628U
HR-A61U HR-VP720U
HR-J420U HR-VP820U
HR-J620U HR-S5100
HR-VP624 HR-S7100

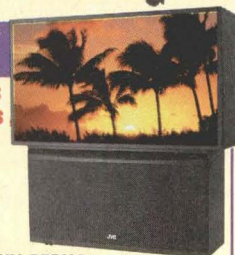
Video Editing

JXS55 JXT88
JXT66 JXT700

SHARP

VL-L390 VLE-43U
VLH-420U VLE-47U
VLH-450U

**JVC SONY PROSCAN
HITACHI TOSHIBA**
**3" to 41" Color Televisions
Big Screen Projection TVs
TV/VCR Combinations &
LCD Projection!**
**WE SHIP NATIONWIDE!
CALL RICK @ EXT.384
FOR ALL YOUR TV NEEDS!**



NV-55BX4



**LCD PROJECTORS!
TELEVISION SPECIALISTS!**

SONY

**Authorized Sony
Dealer**
Video Camcorders •
VCRs • Bookshelf Hi Fi
Systems • Telephones
• Boom Boxes • Mini
Discs • World Band
Radio • Watchman
Portable TVs • Big
Screen • Trinitron •
Home Theater
Hi fi Components

Canon



ES2000

ES500 L2
ES600 ES-800
ES2000 ES-1000

We Carry All Accessories!

RCA

8 mm Camcorders
Pro-809 Pro-883HB
Pro-843 Pro-930
Pro-845

VHS Camcorders
CC413 CC-600
CC-547 CC-740

Video Recorders
VR-503 VR-721
VR-507 VR-720HF
VR-603 VR-800HF
VR-674

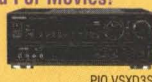
DOLBY SURROUND AC-3 IS HERE!

**DOLBY SURROUND AC-3--The Latest
Development in Surround Sound For Movies!**

RECEIVERS
130 Watt AC-3 Pro Logic
Digital sound field control by DSP!
5-channel accurate imaging System!

**COMBINATION CD/LASER
DISC PLAYERS**

60% sharper than an ordinary VCR!
425-line horizontal resolution!
Digital sound capability!
Digital video processing!
And much more!



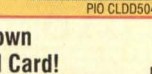
PIO VSD3S



PIO CLD704



PIO CLDD604



PIO CLDD504

**Apply today for your very own
Colonel Video and Audio Gold Card!**

SIMO



Special Effects Generator SFX-5

Easy multi-source mixing. Special
effects like strobe, play and freeze
frame. Microphone included for
narration



Special Effects Controller SFXL

Easy editing at your fingertips. Use
any 3 control-L capable camcorder
or VCR and assemble up to 46
scenes on one tape! Three channel
audio mixer with microphone lets you
mix in music or your voice.

Panasonic
BROADCAST AND TELEVISION
SYSTEM COMPANY



Full Line Panasonic Dealer

AG-456
SVHS-1LUX-12X ZOOM



AG-1970
SVHS/VHS
AG-1290 CT-1383VW
AG-513A CT-1384VY
AG-5700 WJKB15
AG-520A WJMX30
AG-A96 WJAVE7
VV-CG5P WJKB15

PAL/SECAM MULTI-SYSTEM

**WE CARRY ALL NTSC MODELS IN
PAL/SECAM**

SONY

Panasonic
BROADCAST AND TELEVISION
SYSTEM COMPANY



Sony CCDTR2000

Hi8, color viewfinder, optical
stabilizer and RC time code!



AGW-1

Industrial multi-system deck
converts
to/from
any format!

MANY OTHERS NOT SHOWN!

DESKTOP EDITING

Call Charles @ Ext.345 for
all your Desktop
& Industrial needs!

FAST

FAST MOVIE LINE



**FAST VIDEO
MACHINE LITE**



FutureVideo®

ECT1000 PRO Mini
Stand alone cuts-only,
control track edit con-
troller!



**Professional Editing
Equipment in Stock!**

CAMCORDER ACCESSORIES

Replacement Batteries, Tripods,
Microphones, Wireless
Microphones, Video Lights,
External Batteries, Editors,
Processors and Much More!



GLIDECAM

**Glidecam
3000
PRO**
Handles
Up to 10
Pound
Camera!

**CELLULAR PHONE
ACCESSORIES**



Purchase Orders, COD's and Personal Checks Welcome

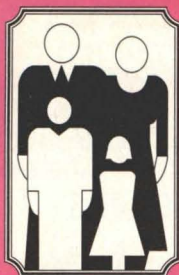
**Protect your investment on all your electronic equipment today! Ask us
for details about our fast and convenient 1-5 Year Warranty Programs**

CIRCLE NO. 21 ON READER SERVICE CARD



UNBEATABLE PRICES

Defective exchanges may be made within 7 days of receipt after prior authorization. All returned merchandise must be in new condition and include packaging and printed material in original unaltered conditions. Returns may be subject to a restocking fee. Shipping and handling charges non-refundable. We are not responsible for typographical errors. Shipping and handling is extra. These are phone and mail order prices only. Prices are not valid in the showrooms or to the customers within a 150 mile radius. If you wish to drive to the stores, please phone ahead to check the in-store price. *Ask for details. Colonel Video and Audio, 16451 Space Center Blvd., Houston, TX 77058



Family Photo & Video

24 HOUR FAX HOTLINE
1-718-998-6650
CUSTOMER SERVICE LINE
10:30AM-5:00PM
1-800-405-7468
LOCAL NY LINE
1-718-645-1298



BUSINESS HOURS: MON-THURS UNTIL CHRISTMAS, 9:30AM-11:00PM AFTER CHRISTMAS, 9:30AM-10:30PM, FRI 9:30AM-4:00PM, SUN 10AM-7PM, OPEN SATURDAY EVENINGS UNTIL CHRISTMAS 6:15PM-10:00PM
We Accept All Major Credit Cards With No Surcharge! We Accept School & Government Purchase Orders!
WE SHIP COD! WE SHIP ANYWHERE ON EARTH! WE SHIP OVERNIGHT BY REQUEST!

CAMCORDERS

SONY

CCD-TR700



\$989

-Color viewfinder -10x Zoom -Hi Fi Stereo -Hi-8 -Flying erase head

CCD-TR600



\$799

-Color viewfinder -24x Zoom -Hi Fi Stereo -Hi-8 -Image stabilizer

CCD-TR93



\$649

-Image Stabilizer -24x Zoom -Color viewfinder -Quick record

CCD-TRV30



\$674

-3" LCD Monitor -12x Zoom -1 Lux -Digital fader -Edit search

CCD-VX3



CALL

-3 CCD's -4 Mode auto exposure -RC Time code -12x Zoom -Interval recording

DCR-V1000	CALL
DCR-V1000	989.99
CCD-TR3000	CALL
CCD-TR700	1279.99
CCD-TR40	834.99
CCD-TR400	699.99
CCD-TR100	669.99
CCD-TR83	579.99
CCD-TR73	539.99
CCD-TR23	474.99
CCD-TR23	454.99
CCD-FX730V	629.99
CCD-FX630	509.99

ES-5000



CALL

-20x Optical Zoom -40X Digital Zoom -Eye Control Focus -180K Pixel Color Viewfinder

ES-1000 949.99
ES-800 CALL
ES-750 CALL
ES-600 CALL
ES-550 CALL
ES-90 CALL
ES-80 CALL
LZ 2249.99

ES-2000



\$1049

-Flexizone AF/AE -Optical image stabilizer -Control L Jack -Color Viewfinder

RCR

Pro 884HB



\$1099

-24X Zoom -Hi-8 Hi Fi Stereo -Color Viewfinder -Image Stabilizer -Accepts AA Batteries

RCA PRO 942 CALL
RCA PRO 932 CALL
RCA CC-620 CALL
RCA CC-612 CALL

SHARP

VL-450U



CALL

-20X Zoom -5 Lux -4" LCD Screen -Remote Control

VL-E37



CALL

-8X Zoom -16.9 Recording Time -3 LUX -3" LCD Screen

HITACHI

VM-H710A



CALL

-24X Zoom -Hi Fi Stereo -Wireless Remote -Synchro Edit

HITACHI VM-H100LA CALL
HITACHI VM-E510A CALL
HITACHI VM-F410A CALL
HITACHI VM-H71A CALL
HITACHI VM-H81 CALL

PV-IQ505



\$574

-Color viewfinder -20x Zoom -Built-In Light -Wireless Remote Control

PV-IQ405



\$529

-1 Lux -20x Zoom -Flying Erase Head -Image Stabilizer

PV-S64



\$989

-S-VHS-C -12x Zoom -Color Viewfinder -Image Stabilizer

Panasonic Industrial AG-195



\$879

-VHS -8x Zoom -Digital Special Effects -10 Watt Light -1 Lux

AG-456



\$1629

-S-VHS -100x Zoom -Hi Fi Stereo -Digital Special Effects

AG-DP800 CALL
AG-3 2149.99
AG-456 1629.99
AG-195 879.99
AG-188 529.99
AG-187 469.99

GR-S29



\$1069

-S-VHS-C -Less than 1 Lux -Color Viewfinder -Digital Special Effects

GR-S29 1069.99
GR-SV7 CALL
GR-S27 939.99
GR-AX900 619.99
GR-AX800 544.99
GR-AX700 474.99
GR-AX350 479.99
GR-AX200 459.99

GR-AX900



\$619

-S-VHS-C -24X Zoom -Character Generator -Image Stabilizer

OUR FAMILY VALUES MEAN YOU GET THE BEST DEALS!

ALL OF OUR PRODUCTS ARE BRAND NEW! EVERYTHING WE SELL IS FACTORY FRESH! WE GUARANTEE LOW PRICES & EXCELLENT SERVICE!

VIDEO ACCESSORIES

SPECIAL!



GOLD LINE 0.42 WIDE ANGLE
Fits All Camcorders, Macro Capability, Can be Used for Day or Night Recording
SPECIAL \$169.99 Reg. \$209.99

BATTERIES

WE CARRY BATTERIES FOR ALL MAKES AND MODELS OF CAMCORDERS

SPECIAL!



SAKUR 3X TELEPHOTO
Multicoated Optics, Super Telephoto, Fits all Camcorders
ONLY \$99.99

TRIPODS

bogen
GITZA
SLIK
Vidpro

JVC

VIDEO PERIPHERALS
JX-ED11 EDIT TOOL 79.99
JX-5700 379.99
JX-5V55 Video Editing Processor 309.99
JX-T88 Character Generator 164.99
JX-T66 Character Generator 79.99
JX-5300 AV Selector 169.99
JX-5100 VHS Switcher 64.99

CITIZEN

M-938 3.8" COLOR MONITOR 189.99
NEW MARK II CALL
CITIZEN M-329 MONITOR PAL 119.99
NEW CASIO UM-570 COLOR MONITOR W/ BUILT IN SPEAKER VOLUME CONTROL & SLIDESHOW CALL

VCRS

SONY

VHS VCR'S
SLV-R1000 864.99
SLV-940HF 349.99
SLV-780HF 334.99
SLV-740HF 279.99
SLV-640HF 264.99
SLV-440 214.99
SLV-340 189.99
BETA
SL-HF2000 CALL
SL-3600 CALL
BMM VCR'S
EV-57000 1384.99
EV-55000 CALL
EV-52000 CALL
EV-C200 CALL
EV-C100 CALL
EV-A60 CALL
EV-A50 339.99
EV-C25 839.99
GV-550 839.99

Panasonic

VHS VCR'S
PV-54580 639.99
PV-4570 CALL
PV-54566 339.99
PV-5454 289.99
PV-4562 259.99
PV-4561 229.99
PV-4551 229.99
PV-4514 194.99
PV-4511 179.99
PV-4501 164.99
PV-2301 159.99
PRO VCR'S
AG-1980 CALL
AG-1970 1049.99
AG-1300 CALL
AG-5700 1174.99
AG-W1 1489.99
WJ-AX30 1739.99

HOME AUDIO

PIONEER

LASER DISCS
CLD-D704 689.99
CLD-D604 579.99
CLD-D504 369.99
CLD-S304 289.99
CLD-S104 224.99
CLD-V860 VHS/CLD 649.99
CLD-V850 VHS/CLD 499.99
CLD-V750 VHS/CLD 479.99
CLD-A100 VHS/CLD 289.99
RECEIVERS
VSX-D35 1089.99
VSX-D9035 669.99
VSX-D7045 524.99
VSX-6045 344.99
VSX-454 204.99
SK-303R 149.99
SK-253R 139.99
SK-203 119.99
COMPACT DISC
PD-F1004 399.99
PD-F904 314.99
PD-F51 274.99
PD-TM3 289.99
PD-DM002 199.99
PD-WR445 189.99
PD-M603 139.99
PD-AP1 CONTROLLER CALL
CT-W704RS 189.99
CT-W604RS 139.99
CT-W504R 129.99
CT-W404R 119.99

VIDEONICS

TM-2000 TITLEMAKER CALL
MX-1 MIXER CALL
THUMBS UP VIDEO EDITOR CALL
AB-1 EDIT SUITE CALL
VP-1 VIDEO PALETTE CALL
SE-1 SOUND EFFECTS MIXER CALL

Sima

SED-2X 109.99
SPX-4 CALL
SPX-5 CALL
SCW 99.99
SED-IR 109.99
SSM 49.99

Panasonic

WJ-AVE7 819.99
WJ-TTL7 259.99
WJ-MX50 CALL
WJ-MX30 1744.99
AG-A96 349.99
CT-1384V 254.99
CT-1384V 289.99

GO.VIDEO

GV-8055Z CALL
GV-8020 CALL
GV-4060 CALL
GV-4020 CALL
GV-401 CALL

MITSUBISHI

HS-U760 529.99
HS-U660 CALL
HS-U560 359.99
GV-8055Z CALL
GV-8020 CALL
GV-4060 CALL
GV-4020 CALL
GV-401 CALL

HITACHI

VT-S772A CALL
VT-F494A CALL
VT-F392A CALL
VT-F391A CALL
VT-M294A CALL
VT-M291A CALL
VT-M190A CALL

JVC

RECEIVERS
RX-817VTN 359.99
RX-717VTN 299.99
RX-517VTN 329.99
CASSETTE DECKS
TD-R461TN CALL
TD-W717TN 199.99
TD-W317TN 144.99
TD-W217TN 124.99
TD-W661TN 224.99

SPEAKERS

ADVENT
BOSE
PIONEER
The Art of Entertainment

10th Anniversary Sale

The Original **SOUND CITY** Since 1986

DSS
DIGITAL SATELLITE SYSTEM
SONY AND RCA
SATELLITE SYSTEMS
NOW IN STOCK

Meadtown Shopping Center • Route 23 S. • Kinnelon, NJ 07405

1-800-525-DEAL

NEW NEW NEW



**Clearline Concepts
Video Clarifier VC-1**

- Eliminates adverse effects of video copyguards! State-of-the-art circuitry restores original (master) quality to all video tapes.
- Unique auto sync boost recognizes low sync condition (present on most copy-protected tapes), eliminates horizontal instability and restores tapes to broadcast quality.
- Fully adjustable color allows the viewer to compensate for color distortions
- Noise reduction circuit filters out "snow" and other annoying channel interference from television broadcasts or video tape programs.
- Unique circuitry boosts vcr output level to ensure the best possible picture quality.
- Compatible with all VCRs and televisions with its switchable RF/RCA video outputs.
- Switchable channel 3/4 output.

Only \$59

NEW ARRIVALS

New State-of-the-art 9" personal portable TV with swivel bracket...CALL



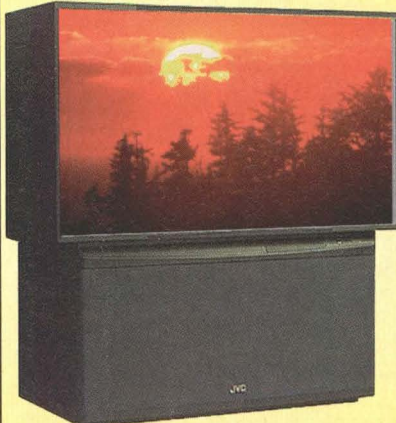
NOW AVAILABLE 13" and 20" TV/VCR combos



CALL FOR PRODUCTS NOT LISTED

HOME THEATER

No Home Theater is complete without the right TV! Sound City carries a large selection of TVs that will truly bring the movie theater experience home. Choose from Sony, JVC, Hitachi, Panasonic and Many More! TV's From 3' to 100" Available!



SPECIAL OF THE MONTH

COMPLETE PACKAGE

Jamo Center 50
Center Channel Speaker
• 2-Way bass reflex speaker
• Dual 4" woofers
• 3/4" dome tweeter
• Video shielded
• 90 Watts peak power handling

Jamo SW600E
Powered Home Sub
• 100W Powered subwoofer
• Dual 10" bass units
• Ideal for home theater
• Electronic control box for on/off, level, phase & freq.

2 pair Jamo Coronet 40
Compact Loudspeakers
• 2-Way bass reflex design
• 5 1/4" woofer 1" dome tweeter
• 90W power handling

NOW ONLY \$899

Visit The Only **THX** Home Cinema In The State of NJ!



CAMCORDERS & VCRs

We Are An Authorized Dealer for All Camcorder Brands We Carry. All Formats Available From Such Fine Manufacturer's As:

JVC

NEW! GRAX-900
NEW! GRAX-800
NEW! GRAX-700
NEW! GRAX-350
NEW! GRAX-200
NEW! GR-SZ9
IN STOCK!



VCRs

HR-S7100U **HR-VP628U**
HR-S5200U **HR-J620U**
HR-VP720U **HR-A61U**
HR-VP618U **HR-A41U**

CALL FOR THE BEST PRICES ON ALL JVC VIDEO PRODUCTS!

Panasonic

PV1Q-505
PV1Q-405
PV1Q-305
PV-54
PVS-64

NEW! PVD-705
DIGITAL SPECIAL EFFECTS



VCRs

NEW! PV-2501 **NEW! PV-4561**
NEW! PV-4501 **NEW! PV-4562**
NEW! PV-4511 **NEW! PV-4564**
NEW! PV-4514 **NEW! PV-4566**
NEW! PV-4551 **NEW! PV-4580**

CALL FOR THE BEST PRICES ON ALL PANASONIC VIDEO!

SHARP



SHARP VIEWCAM
AN ABSOLUTE ORIGINAL

NEW! VLE-37
NEW! VLE-47
NEW! VIL-420
NEW! VIL-450

Up to \$200
Rebate Direct
From Sharp
With Purchase

CALL FOR THE BEST PRICES ON ALL SHARP VIEWCAMs!

HITACHI

VM-E310 **VMH-58**
VM-E410A **VMH-59**
VM-E510A **VMH-71**
VMH-710A
VMH-54
VMH-56 **IN STOCK!**



VCRs

VTUX605A 4 hd, Hifi **VTF391A** 4 hd, Hifi
VTF494A 4 hd, Hifi **VTM294A** 4 head
VTF482A 4 hd, Hifi **VTM284A** 4 head
VTF382A 4 hd, Hifi **VTM282A** 4 head
VTF392A 4 hd, Hifi **VTM292A** 4 head

CALL FOR THE BEST PRICES ON ALL HITACHI VIDEO!

ACCESSORIES PLUS!

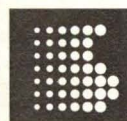


We Also Carry A Full Line of Batteries, Camcorder Bags, Lights, Tripods, Rewinders, A/V Tape, Head Cleaners, Filters, Interconnects & more!



EXTENDED WARRANTIES AVAILABLE

SONY



Authorized Dealer

FACTORY AUTHORIZED

ADS • Advent • Audio Control • Aiwa • AKG • Altec Lansing • Audio Quest • Acoustic Research • Audio Source • Atlantic Technology • B&K • B&O • Bazooka • BBE • BeyerDynamics • Bellogetti Brother • Canon • Carver • Cerwin Vega • Celestion • Clif Designs • Canton • CodeAlarm • CWD • Denon • Dynatone • Grado • Hafler • Harmon/Kardon • Hitachi • Hughes • Infinity • Jamo • JBL • JVC • K40 Koss • Lexicon • Mitsubishi • Monitor Audio • Monster Cable • Niles • OrniMount • Orion • Panasonic • Philips • Pinnacle • Pioneer • Panamax • PPI • Proscan • PS Audio • Rane • Rockford Fosgate • Runco • Soundcraftsmen • Soundstream • Senheiser • Sherwood • Sharp • Sony • Sonance • SSI • Stewart • Target • Technics • Terk • Thorens • Triad & More!

30 Day Price Protection Guarantee

Means you have the insurance of knowing you have bought any of our products at the guaranteed lowest price. If you find a lower price on an identical item advertised by an authorized dealer within 30 days from the date of purchase, send us a copy of the ad and we will gladly refund you the difference.

FOR INFORMATION & CUSTOMER SERVICE
201-263-6060

WE SHIP TO CANADA
WE SHIP WORLDWIDE
No Credit Card Surcharges
Se Habla Espanol

RETAIL HOURS
Mon - Fri
10am - 9pm EST
Saturday
9am - 6pm EST

MAIL ORDER HOURS
Mon - Fri
8am - 12pm EST
Sat 9am - 6pm EST
Sun 11am - 5pm EST



SC#
VM1195



Some pictures for illustration only. Not responsible for typographical errors • No refunds on video or car stereo products • 10 Day defective exchange from date of receipt • All returns must be made within 10 days of receipt of merchandise & are subject to a restocking fee • Items must be in original condition and packaging • Standard shipping applies Shipping and handling are not refundable • No tax on out of state purchases • Non-commissioned salesman • Next day and second day delivery available.

**OVERNIGHT
SHIPPING
AVAILABLE**

**INFORMATION #
CALL 718-265-6800**
24 Hr. FAX LINE 718-265-1754

**14 DAY
SATISFACTION
GUARANTEE**

CAMCORDERS

SONY

CCD TRV-70

- 4" Monitor
- 24X Zoom
- Built in Speakers
- Hi-8
- Steady Shot

**SONY
AUTHORIZED
DEALER**

WE ARE SPECIALISTS IN SONY LASER DISC, KARAOKE AND AUDIO COMPONENTS
• Pro Video • Video Camcorders • Hi-Fi Stereo Audio Components • Video Cassette Recorders • Mini Hi-Fi Bookshelf Stereo Systems • Laser Disc/Karaoke Players

CALL FOR BEST PRICE!!

HITACHI

VMH-710A

- Hi-8 Format
- 24X Zoom
- Stabilizer
- Color
- Viewfinder
- DSP III

CALL!!

VME-52 VME-310A VMH-59A
VME-54A VME-410A VMH-81A
VME-56A VME-510A VMH-710A
VME-110A VMH-38A VMH-810A

CALL FOR BEST PRICE!!

SHARP

VL-H450U SHARP REBATE OFFER

VL-E37U.....\$117
VL-E47U.....\$119
VL-H410U.....\$119
VL-H420U.....\$97
VL-H450U.....CALL

*Prices After Rebate

MINOLTA

**C-552 ONLY FROM THE MIND OF MINOLTA
GET CASH BACK FROM MINOLTA**

C-552.....CALL 8-862.....CALL
C-542.....CALL 8-852.....CALL
C-532.....CALL 8-842.....CALL
C-503.....CALL 8-832.....CALL
C-513.....CALL CALL 4 PRICE

CAMCORDER NECESSITIES

VIDEO BAGS \$29 & up
TAMRAC • LOWEPRO • MIZCO
DIAMOND • EMPIRE • DOSKOCIL
INDUSTRIAL BATTERIES.....CALL
FILTER KITS (2 piece & 3 piece).....CALL
TRIPODS-Bogen, Slik, Mizco.....CALL
Wide Angle/Telephoto Lens Kits.....\$89 & up
Video Rewinders - 8mm, VHS, Beta.....CALL

These are mail order prices only. If you are planning on coming to the store, please call in advance to reserve merchandise for pickup. We welcome all major credit cards with no surcharge. COD welcome, money order and certified checks. Allow 2-3 weeks for personal check clearance. Please call customer service for prior return authorization # before shipping. Shipping and handling is non refundable. All returns subject to restocking fee, and must be returned in original box, and in original mint condition, with unfiled warranty cards. No exceptions. Some items listed are imported and do not carry Manufacturer's warranty. In most cases Coast to Coast provides its own warranty. USA manufacturer's warranty may be additional. Not responsible for typographical errors. Above prices supercede all others, and remain in effect until next month's issue. Standard shipping applies. Call for handling & insurance prices. Thank you for shopping Coast to Coast, where service is the most!!

COAST TO COAST

CAMERAS • AUDIO • VIDEO
17 YEARS EXPERIENCE

FOR ORDERS ONLY
USA & CANADA **1-800-788-5555**

CAMCORDERS

Panasonic

PV-IQ505

- 20:1 Zoom
- 1 Lux
- Color
- Viewfinder
- Stabilizer
- Remote

\$597.00

CONSUMER LINE
PV-IQ205.....477
PV-IQ305.....497
PV-IQ405.....557
PV-IQ505.....607
PV-54.....1187
PVS-770.....1187
PV-940 (VHS).....487
PV-950.....520
PV-960.....579

PRO INDUSTRIAL
AG-456.....1777
AG-195.....897
AG-187.....497
AG-188.....597
AG-DP800.....CALL
WJ-AVE7.....827
WJ-MX30.....1727
WJ-MX50.....4097
WJ-TTL7.....CALL

Canon

L2-PRO

New! ES-5000.....CALL
New! ES-2000.....1127
ES-80/ES-90.....CALL
ES-500.....549
ES-550.....555
ES-600.....CALL
ES-800.....728

JVC

GRSZ-9

GRAX-200.....477
GRAX-350.....517
GRAX-600.....CALL
GRAX-700.....517
GRAX-800.....577
GRAX-900.....647
GRSZ-7.....947

Nikon

VN-360

TAKE THE WORLD'S
GREATEST VIDEOS!

VN-200.....CALL
VN-350.....CALL
VN-360.....CALL
VN-400.....CALL

RCA

CHANGING ENTERTAINMENT.

CC190 CC60 PRO 844 PRO 932
CC414 CC612 PRO 845 PRO 942
CC420 CC616 PRO 846 PRO 944
CC422 CC620 PRO 884 CALL!!!!

simon

SFX-M(New).....CALL
SED-T(New).....CALL
SFX-L.....177
SFX-5.....217
SCW.....36
SPM-3.....CALL
SPM-6.....CALL
SPM-7.....19
SPM-10.....47
COPYMASTER.....57

VIDEO EDITING
FAST
VIDEO MACHINE LITE
EDIT SUITE
VIDEO DIRECTOR
VERSION 2.5

VCR'S

JVC

HRS-5200.....469
HRS-7200.....597
HRS-7100.....547
HRJ-220.....154
HRJ-420.....164
HRJ-620.....237

HRVP-628.....297
HRVP-720.....339
HRA-61U.....227
HRVP-624U.....257
HRVP-422.....187
HRA-41.....167

Panasonic

AG-A96.....389
AG-1290.....217
AG-1300.....237
AG-1970.....1077
AG-1980 New.....CALL
AG-5700.....1177

PV-4501.....178
PV-4551.....228
PV-4561.....248
PV-4562.....278
PV-4564.....288
PVS-4580.....CALL

SONY

SLV-340.....CALL
SLV-440.....CALL
SLV-640.....CALL
SLV-740.....CALL
SLV-780.....CALL
SLV-940.....CALL
SLVR-1000.....CALL

EVC-25.....CALL
EVA-200.....CALL
EVA-50.....CALL
EVC-2000.....CALL
EVC-7000.....CALL
EVC-100.....CALL
SLHF-2000.....CALL

MITSUBISHI

HSU-250.....CALL
HSU-510.....CALL
HSU-560.....CALL
HSU-650.....CALL
HSU-760.....CALL
HSU-770.....CALL

GO.VIDEO

GV-3030.....497
GV-3060.....647
GV-3070.....697
GV-3080.....CALL
GV-3090.....CALL
GV-8020.....647

GV-8050.....CALL
GV-4010.....CALL
GV-4020.....CALL
GV-4060(New).....CALL
GV-8050Z.....747
GV-8055Z.....CALL

TOSHIBA

M-661.....279
M-671.....CALL
M-751.....CALL
M-761.....CALL
M-781.....CALL
M-471.....CALL
M-760.....319

HITACHI

VTM-291A.....CALL
VTM-292A.....CALL
VTM-282A.....CALL
VTM-284A.....CALL
VTM-294A.....CALL
VTF-391A.....CALL

VTF-392A.....CALL
VTF-382A.....CALL
VTF-482A.....CALL
VTF-494A.....CALL
VTUX-605A.....CALL
VTS-772A.....CALL

RCA

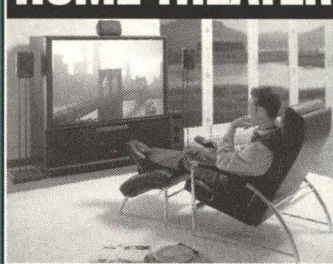
VR-321.....CALL
VR-329.....CALL
VR-504.....CALL
VR-507.....CALL
VR-528.....CALL
VR-538.....CALL

VR-603.....CALL
VR-610.....CALL
VR-612.....CALL
VR-674.....CALL
VR-721.....419
VR-725.....CALL

VIDEONICS

MX-1: DIGITAL VIDEO MAKER \$388.00
4-Input video production switcher, mixer, frame synchronizer/TBC (Time Base Corrector) & special effects generator. Quality meets FCC broadcast specs. Over 200 effects!
TM-2000: TITLEMAKER 2000...\$448.00
Video character generator that delivers high-resolution titles in over 2 million colors with 92 font-size combos and 36 styles. Holds 8,000 characters on hundreds of pages.
AB-1: EDIT SUITE...\$539.00
Supports control-L, control-M, RS-232, RS-422, consumer & pro VCR interfaces. State of the art AB roll edit controller. Works with MX-1 for A/B/C/D roll editing.

HOME THEATER



PIONEER

CALL FOR GREAT PIONEER PRICES!

TAPE DECKS
CTW-103
CTW-404R
CTW-504R
CTW-604RS
CTW-704RS

RECEIVERS
VSX-453
VSX-454
VSX-D504S
VSX-D604S
VSX-D704S
VSX-D903S
VSX-D3S

CD PLAYERS
PD-F1004
PD-F904
PD-F51
PD-TM3
PD-DM802
PD-M703
PD-M603

KARAOKE/LASER DISCS
CLD-D704
CLD-D604
CLD-D504
CLD-S304
CLD-S104
CLD-V860
CLD-V750

SONY

RECEIVERS
STRD-1015
STRD-965
STRD-965S
STRD-665
STRD-665S
STRD-565
STRD-365

CD PLAYERS
CDPC-265
CDPC-365
CDPC-445
CDPC-545
CDPC-745
CDPC-910

TAPE DECKS
TCWR-665S
TCWR-565
TCWR-465
TCW-365
TCK-615S
TCK-461S

CALL FOR ALL SONY PRODUCTS!

JVC

RECEIVERS
RX-817VTN.....337
RX-717VTN.....277
RX-517VTN.....197
RX-317TN.....137
RX-212BK.....139

MINI SYSTEMS
MX-C990.....687
MX-C770.....497
MX-C550.....397
MX-C330.....347
MX-C220.....299

CD PLAYERS
XLV-217TN.....127
XLM-317TN.....177
XLM-417TN.....187
XLF-215TN.....158
XLM-509TN.....237

TAPE DECKS
TDW-717TN.....177
TDW-709TN.....197
TDW-309TN.....157
TDW-317TN.....147
TDW-209TN.....127

Call For Your BEST PRICE!!!

**KENWOOD • YAMAHA
TECHNICS • BOSE
CERWIN VEGA
ADVENT**
!!Holiday Specials!!

JVC

JXED-11.....79
JXT-66.....97
JXS-V55.....327
JXS-700.....397
JXT-88.....165

WE Carry a Full Line of JVC/SONY, Maxell, TDK, & Fuji VIDEO TAPES

CITIZEN
COLOR MONITORS
M-329.....137
M-338.....197
A/C ADAPTOR.....CALL
CAR ADAPTOR.....CALL

Buy Any 3-Batteries Get: 1-Video Light FREE

SUNPAC RB-80UL BATTERY \$47.00

DIRECT IS BEST

CUT OUT THE MIDDLEMAN AND BUY DIRECT

- **AMAZINGLY LOW PRICES**
- **FREE 5-YEAR WARRANTY**
- **FREE ELECTRONICS NEWSLETTER**

SPECIAL HOLIDAY OFFER!
Get a \$100 USA DIRECT Gift Certificate for only \$79. Hurry, Offer expires December 24th!

USA DIRECT

You won't find a better source for home electronics than USA DIRECT... all the quality items you want, all the leading brands you want— from A to Z!

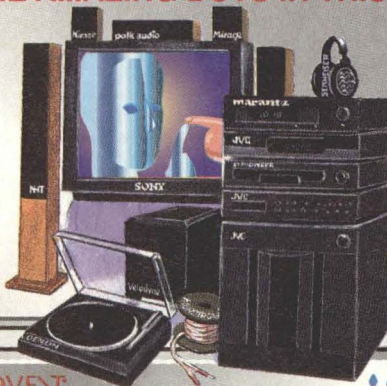
CALL TODAY!

(800) 959-4434

JUST A SAMPLE OF THE AMAZING BUYS IN THIS MONTH'S NEWSLETTER

	RETAIL	SALE
AR 338T . . .	\$ 700 . . .	\$ 488
ADCOM . . . GFA 7000 . . .	\$1300 . . .	\$ 999
BOSTON . . . SubSat 7 . . .	\$ 750 . . .	\$ 585
CARVER . . . AV 405 . . .	\$ 850 . . .	\$ 629
CELESTION . . . SL6Si . . .	\$ 900 . . .	\$ 488
HARMON KARDON . FL8400 . . .	\$ 350 . . .	\$ 238
HITACHI . . STEREO VCR . . .	\$ 270 . . .	\$ 169
INFINITY . . . RS 10 B . . .	\$ 700 . . .	\$ 399
JBL . . . LXE 990 . . .	\$ 860 . . .	\$ 399
JVC . . . 20" Color TV . . .	\$ 400 . . .	\$ 295
KEF . . . REFERENCE 70s . . .	\$ 500 . . .	\$ 299
MARANTZ . . . CD63 . . .	\$ 400 . . .	\$ 199

All Our Sale Prices Include 5 Year Warranty & FREE Shipping



	RETAIL	SALE
MITSUBISHI . 31" COLOR T.V. \$1000 . . .	\$ 888	
NAD . . . AV316 . . .	\$ 650 . . .	\$ 495
NAKAMICHI . . MB 3s . . .	\$ 500 . . .	\$ 388
ONKYO . . . TX8410 . . .	\$ 350 . . .	\$ 239
PANAMAX . MAX 1000+ . . .	\$ 400 . . .	\$ 219
PIONEER . . . PDF51 . . .	\$ 535 . . .	\$ 199
PIONEER ELITE . . PD65 . . .	\$ 800 . . .	\$ 588
PSB . . . SUBSONIC II . . .	\$ 600 . . .	\$ 439
SONY . CDTTRV30 5 YR Warranty! . . .	\$1100 . . .	\$ 789
SONY ES . . . CDCA7ES . . .	\$ 350 . . .	\$ 269
VELODYNE 8" Powered Sub . . .	\$ 630 . . .	\$ 439
YAMAHA . . . KXW282 . . .	\$ 250 . . .	\$ 188

All Our Sale Prices Include 5 Year Warranty & FREE Shipping



USA DIRECT
FREE MONTHLY NEWSLETTER

FREE MONTHLY NEWSLETTER

- New product reviews
- Inside industry news
- Direct international prices
- Exciting special offers
- Tips on getting the most from your equipment
- The latest, hottest new technology products

USA DIRECT

535 Midland Ave.,
Garfield, NJ 07026
Tel (800) 959-HIFI
Fax (800) 411-HIFI

WE OFFER MORE!

FREE 5 YR. COMBINED FACTORY WARRANTY & SERVICE CONTRACT

- **FREE Shipping & Insurance**
- **FREE Scheduled Maintenance**
- **FREE Price Protection**
- **FREE Performance Guarantee**
- **FREE Cables & Interconnects**
- **Next Day Delivery Available.**
- **And Of Course, Amazingly Low Prices**

MasterCard, Visa, American Express, Discover & JCB Card

All goods covered by original manufacturer's or USA limited warranty and/or by comprehensive 5 year service contract. Some prices may be affected by prevailing currency exchange rates. Not responsible for typographical errors.



ABE'S

CALL TOLL FREE! IN NY & OUT OF STATE
1-800-528-2237

SINCE 1979 CAMERAS AND ELECTRONICS **OF MAINE**
1957 CONEY ISLAND AVE, BROOKLYN, NY 11223
INTERNATIONALLY RENOWNED!
ORIGINALLY FROM OLD ORCHARD BEACH MAINE

CALL FOR OUR FREE CATALOG!
PRICES VALID UNTIL END OF MONTHLY ISSUE



Orders and Inquiries can now be E-Mailed to us at: ABEMAINE@aol.com

SATISFACTION GUARANTEED WITHIN 7 DAYS OR YOUR MONEY BACK!

WE ALSO CARRY PAL!

Mon-Thur Unit Dec. 22 9:30am-11:00pm
Mon-Thur After Dec. 22 9:30am-10:30pm
Friday 9:30am-4:00pm
Sunday 10:00am-7:00pm
Sat Eve Unit Dec. 22 6:15pm-10:00pm

LOCAL & OVERSEAS
Call 1-718-645-1818

FAX NUMBERS
Order Line1-718-998-5216
Customer Service.....1-718-382-8596

SONY

CCD-TR700
STEADY SHOT IMAGE STABILIZER
PROGRAM AUTO EXPOSURE
COLOR VIEWFINDER
HI-FI STEREO, 3 LUX
10:1 ZOOM

\$989**

CCD-TR600
ADVANCED COLOR VIEWFINDER
AUTO LENS COVER, EDIT SEARCH
COMPACT SIZE,
24:1 ZOOM
HI-8

\$799**

DCR-VX1000
ZEBRA PATTERN EXPOSURE INDICATOR
OVER 500 LINES RESOLUTION
20:1 DIGITAL ZOOM
RE TIME CODE
3CCD CHIPS

CALL

CCD-TR93
WIRELESS REMOTE CONTROL
HI-FI STEREO, QUICK RECORD
IMAGE STABILIZER
24:1 ZOOM, 8MM
3 LUX

\$669**

CAMCORDERS

CCD-VX3CALL CCD-TR73539.99
DCR-VX700CALL CCD-TR33474.99
CCD-TR3000CALL CCD-TR23454.99
CCD-TR700989.99 CCD-TRV701279.99
CCD-TR600799.99 CCD-TR V40834.99
CCD-TR400699.99 CCD-TR V30674.99
CCD-TR100659.99 CCD-FX730V629.99
CCD-TR93649.99 CCD-FX630509.99
CCD-TR83579.99 CCDS5569.99

SONY VHS VCR'S

SLV-R1000CALL SLV-740319.99
SLV-940374.99 SLV-640299.99
SLV-780344.99 SLV-440244.99
SLV-340234.99

8MM VCR'S

EV-S70001499.99 EV-C200CALL
EV-S5000CALL EV-A50339.99
EV-S2000739.99 EV-A60CALL
EV-C100459.99 EV-C25284.99
EV-S50CALL

ALL SONY VCR'S CARRY USA WARRANTY

BETA VCR'S

SL-HF2000CALL SL-S600CALL

LASER DISCS

MDP-650CALL MDP-550CALL

RECEIVERS

STR-D1015429.99 STR-D715279.99
STR-D965329.99 STR-D665239.99
STR-D865294.99 STR-D565189.99

COMPACT DISC

CDP-CX151459.99 CDP-C445204.99
CDP-C910349.99 CDP-C365179.99
CDP-C745284.99 CDP-C345174.99
CDP-C545249.99 CDP-C265169.99
CDP-CX153CALL

CASSETTE DECKS

TCX-6155289.99 TC-WR565169.99
TC-WR665224.99 TC-WR465139.99
TC-WR365CALL

MINI COMPONENT SYSTEM

MHC-C305329.99 MHC-C605449.99
MHC-C405389.99 MHC-C7EX759.99
MHC-C9EXPG1299.99

WE WELCOME GOVERNMENT, CORPORATE AND SCHOOL PURCHASE ORDERS

Panasonic

CAMCORDERS

PV-D705789.99 PV-VQ205444.99
PV-S64989.99 PV-S770894.99
PV-S4799.99 PV-S60554.99
PV-H0505574.99 PV-950509.99
PV-H405529.99 PV-940449.99
PV-H305479.99 PV-910399.99

PANASONIC VCR'S

PV-S4800669.99 PV-4561249.99
PV-4570CALL PV-4551244.99
PV-S4566374.99 PV-4514209.99
PV-4564309.99 PV-4511189.99
PV-4562284.99 PV-4501179.99

PRO ACCESSORIES

WJ-AV7819.99 WJ-MX301739.99
WJ-TL7259.99 AG-A96349.99
WJ-MX50CALL CT-1384Y254.99
CT-1384V289.99

PV-IQ505

DIGITAL IMAGE STABILIZER
1 LUX, AUTO LENS COVER
COLOR VIEWFINDER
VHS-C, 20:1 ZOOM
BUILT IN LIGHT

\$574**

PV-DV1000

HI-RES COLOR VIEWFINDER
IMAGE STABILIZER, DIGITAL RECORDING
10:1 OPTICAL/20:1 DIGITAL ZOOM
500 LINES RESOLUTION
CD QUALITY AUDIO

CALL

PRO INDUSTRIAL

AG-456

INDUSTRIAL QUALITY CONSTRUCTION
12:1 OPTICAL/100:1 DIGITAL ZOOM
DIGITAL SPECIAL EFFECTS
HI-FI STEREO, 8-VHS
3 LUX

\$1629**

AG-1970

DIGITAL TIME BASE CORRECTOR,
JOG/SHUTTLE, ASSEMBLY EDITING,
FRAME ACCURATE EDITING, AUTO HEAD
CLEANER, HI-FI STEREO, 3 LUX

\$1049**

PRO CAMCORDERS

AG-4561629.99
AG-187469.99
AG-188529.99
AG-195879.99
AG-3 3 CHIP S-VHS-C2149.99
AG-DP800 SUPERCAMCALL

PANASONIC PRO VCR'S

AG-1980CALL
AG-19701049.99
AG-57001174.99
AG-W11489.99
AG-1300CALL
AG-1290209.99

JVC

GR-SZ9

DIGITAL SPECIAL EFFECTS
120 DIGITAL ZOOM
COLOR VIEWFINDER
IMAGE STABILIZER
S-VHS-C, 0.06 LUX

\$1069**

JVC PROFESSIONAL

GY-X28U CAMCORDERCALL
BR-S378 S-VHS VCRCALL
SR-S360 S-VHS VCRCALL
TM-130 SU MONITOR239.99
TM-900 SU MONITOR439.99

GR-AX900

DIGITAL STABILIZER
120 DIGITAL ZOOM
COLOR VIEWFINDER
BUILT-IN LIGHT
REMOTE CONTROL

\$619**

JVC RECEIVERS

RX-R17VTN359.99 RX-S17VTN229.99
RX-R17VTN299.99 RX-S17VTN159.99

CAMCORDERS

GY-X28UCALL
GR-SV7CALL GR-AX350479.99
GR-SZ7939.99 GR-AX200459.99
GR-AX800544.99 GR-SV3524.99
GR-AX700474.99 GR-EZ1369.99

CD PLAYERS

XL-MC100569.99
XL-M515CALL XL-F211TN179.99
XL-M417199.99 XL-F317CALL

CASSETTE DECKS

TD-V661TN239.99 TD-W317TN159.99
TD-R461TNCALL TD-W217TN139.99
TD-W171TN219.99 XD-Z507TNCALL

MINI COMPONENT SYSTEM

MX-C990719.99 MX-C330359.99
MX-C770539.99 MX-C220314.99
MX-C550429.99 MX-S200CALL

VIDEO PERIPHERALS

JX-ED11 EDIT TOOL89.99
JX-S700409.99
JX-SV55 Video Editing Processor339.99
JX-T88 Character Generator189.99
JX-T66 Character Generator99.99
JX-S300 AV Selector189.99
JX-S100 VHS Switcher79.99

ALL JVC PERIPHERALS COME WITH USA WARRANTY!

RECA

PRO-884HB

HI-FI STEREO, AUDIO/VIDEO DUBBING
COLOR VIEWFINDER, IMAGE STABILIZER
CHARACTER GENERATOR, ACCEPTS AA
BATTERIES

\$1099**

CC-620

VHS-C, 24:1 ZOOM, COLOR VIEWFINDER,
IMAGE STABILIZER, BUILT-IN LIGHT,
WIRELESS REMOTE, TITLER
AUTO HEAD CLEANER

CALL

CAMCORDERS

PRO-942899.99 CC-616CALL
PRO-932849.99 CC-612CALL
PRO-946799.99 CC-422CALL

VCR'S

VR-725HFCALL VR-617HFCALL
VR-678HFCALL VR-613HFCALL
VR-676HFCALL VR-603AHFCALL

CALL FOR OTHER MODELS!

MITSUBISHI

VCR'S

HS-U110CALL
HS-U410299.99
HS-U510319.99
HS-U660359.99
HS-U660359.99
HS-U760529.99

ALL MITSUBISHI VCR'S INCLUDE USA WARRANTY!

HITACHI

VM-H81A

WATER RESISTANT SHOCK
RESISTANT, HI-8, 24:1 ZOOM
2 LUX, DSP
AUDIO/VIDEO
FADE

CALL

CAMCORDERS

VM-H100ACALL VM-H710ACALL
VM-3800ACALL VM-E510ACALL
VM-2800ACALL VM-E410ACALL
VM-1800ACALL VM-E310ACALL

VT-F482A

JOG SHUTTLE CONTROL,
5 HEADS, FLYING HEAD
VT-F382ACALL

SHARP

VIEWCAM

VLH-450UCALL
VLH-420UCALL
VLH-410UCALL
VL-E47UCALL VL-L65UCALL
VL-E37UCALL VL-L95UCALL

Canon

L-2

VL MOUNT INTERCHANGEABLE
LENS SYSTEM, DIGITAL
SPECIAL EFFECTS
RC TIME CODE, HI-8
HIGH SPEED SHUTTER
MUCH MORE

\$2249**

ES-2000

20:1 OPTICAL ZOOM, FLEXIZONE
AF/AE, COLOR
VIEWFINDER, OPTICAL
IMAGE STABILIZER,
HI-8, HI-FI STEREO

\$1049**

ES-5000

40X ZOOM, HI-8
EYE CONTROL
FOCUS, COLOR
VIEWFINDER

CALL

CAMCORDERS

ES-1000949.99 ES-550CALL
ES-800CALL ES-90CALL
ES-600CALL ES-80CALL

CANON ACCESSORIES

L-2 ACCESSORIES

CL8-120 15X Zoom Lens509.99
CL8-75 8X Lens309.99
CL-15 Wide Angle Zoom539.99
CL-250 Super Telephoto Lens539.99
CL-100 100X Image Stabilizing Lens2399.99
CL2X Doubler289.99
EOS VL AdapterCALL
FS-720 Filter SetCALL
FS-1000 Rain Shield39.99
HC-2000 Hard Case239.99

GENERAL ACCESSORIES

PB-100 Portable Battery Charger59.99
MC-100 4 Battery ChargerCALL
VL-7 Video Light29.99
ZM-100 Zoom Microphone129.99
MM-100 Mixing Microphone89.99
ED-100 Video Editor184.99
ZD-100 Zoom Remote Controller47.99
FS Series Filter SetCALL
SF-200 Sports Finder34.99
VK-U1 Video Backpack89.99
GB-100 Grip Belt12.99
CB-900 Car Battery Adapter159.99
Lithium Ion Battery PackCALL
Canon BatteriesCALL

ES-5000 ACCESSORIES

SK-100 Sports PackCALL
CB-900 Car Battery AdapterCALL
Lithium Ion Battery PackCALL

SIMA

SCG-b/w Titler99.99
SCW - Color TitlerCALL
SED-IR Infrared Video Editor109.99
SES-L PC Editor w/control49.99
SES-P PC Editor w/control49.99
SSM - Stereo Sound Mixer44.99
SDX-2K Edit 2K109.99
SDX-4 FX Video Edit159.99
SFX-5 Video Pro Magic229.99
SFX-M Digital MixerCALL

VIDEONICS

TM-2000 TITLEMAKERCALL
MX-1 VIDEO MIXERCALL
TU-1 THUMBS UPCALL
AB-1 EDIT SUITECALL
VP-1 VIDEO PALETTECALL
SE-1 SOUND MIXERCALL

PIONEER

LASER DISCS

CLD-D704708.99 CLD-D504379.99
CLD-D604589.99 CLD-S304299.99
CLD-S104229.99

KARAOKE

CLD-V880 KARAOKE649.99
CLD-V750 KARAOKE509.99
CLD-A100 INTERACTIVE309.99

WE CARRY PIONEER MICROPHONES!

CASSETTE DECKS

CT-W704RS214.99 CT-W504R139.99
CT-W604RS149.99 CT-W404R129.99
CT-W10389.99

RECEIVERS

VSK-D3SCALL
VSK-D803S664.99
VSK-D704S559.99
VSK-D64S359.99
VSK-S04S284.99
VSK-454219.99
SK-303R159.99
SK-253R144.99
SK-203124.99

COMPACT DISCS

PD-F1004419.99
PD-904324.99
PD-F51289.99
PD-TM3324.99
PD-DM802224.99
PD-M703179.99
PD-M603149.99
PD-M423139.99
PD-AP1 CONTROLLERCALL

GO.VIDEO

DUAL DECK VCR'S

GV-8055CALL
GV-8020CALL
GV-4060CALL
GV-4020CALL
GV-4010CALL

VIDEO REWINDERS

VHS9.99
8MM24.99

CITIZEN

3" COLOR MONITOR

M-329 \$119**

M-329 MINI COLOR MONITORCALL
M-338 3.8" COLOR MONITOR189.99
CITIZEN M-329 MONITOR PAL 119.99
NEW CASIO VM-570 COLOR
MONITOR w/BUILT IN SPEAKER
VOLUME CONTROLCALL
SUNSHADECALL

COMPANY POLICY: These are phone and mail order prices only. Prices are not valid in the retail showroom. If you wish to drive to the store, please call ahead to check in store availability and get the name of the salesperson you speak to. To order use Visa, MasterCard, American Express, Discover, Charge, Carte Blanche. COD orders welcomed or mail in Bank, Cashiers or Certified Checks. For Personal Checks and Money Orders please allow at least 4 weeks from the date we deposit your check. Call toll-free for shipping & handling charges. All merchandise is brand new. Exchange or refund less shipping & less 5% restocking fee within 7 days only if returned in original mint condition with cartons, packing, papers and unutilized warranty cards. NO EXCEPTIONS. Quantities limited. We reserve the right to limit quantities. Not responsible for typographical errors. Prices are Valid Until End of Monthly Issue, and are subject to verifiable Manufacturer's price changes. Products offered carry USA or Int'l Warranty-Call toll-free. DCAF 0898874

CIRCLE NO. 33 ON READER SERVICE CARD

The Largest Selection Of Name Brand Electronics At
The Absolute Lowest Prices! From 20%-60% Off List!

SONY **Panasonic** **JVC** **BOSE**
HITACHI **Canon** **PIONEER** **Karaoke**
RCA **GO.VIDEO** **SHARP** **TOSHIBA**

name brand camcorders

all at the guaranteed lowest prices.

SHARP VLE-42 4" Color LCD\$819
Panasonic PV-IQ505 HiFi, Color VFReduced!
NEW! Digital Camcorders Reserve Yours Today!
Hitachi Compact Hi 8 Color VF Stabilizer ...\$799
Sony Camcorders at the guaranteed lowest price!



8mm, beta, & vhs vcrs

all at the guaranteed lowest prices



Sony Industrial 8MM EVO-520.....\$279
Super Beta slow motion.....\$399
Panasonic 4 Head Hi Fi Stereo.....\$219
Toshiba Flying Pre-amp 6 Hr recording.....\$350
PANASONIC PV-4366 S-VHS HiFi Shuttle...\$349

PLEASE CALL FOR VIDEO EDITORS AND MIXERS

hi fi stereo receivers



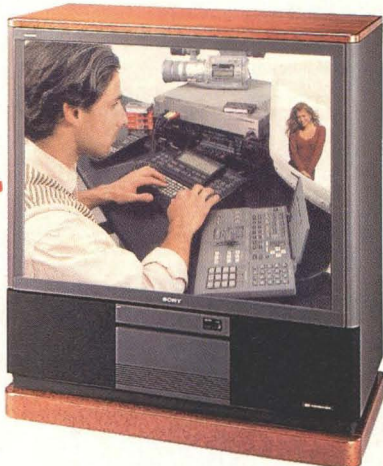
Dolby Pro logic 100 watts per channel.....\$199
NEW Dolby Surround AC-3/Pro LogicCALL
THX/Dolby Pro Logic Receiver.....\$799
Dolby Pro logic 125 wpc, multi room-multi
source programming, 5 Spkr outputs\$669

video editors & mixers

Videonics MX-1 Special Effects Generator...CALL
Videonics AB-1 AB Roll Time Code CMX...CALL
Videonics TM-2000 Hi Resolution TitlerCALL
Sony XVD-1000 Frame SynchronizerIn Stock!
Panasonic WJAVE-7 Pro Mixer.....Blowout!
Free Instructional Video with mixer purchase!

the home theater system

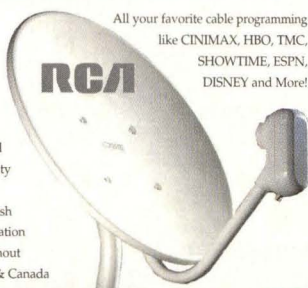
We have all the technology your looking for,
Super Flat, SFT Perfect, Ultra Vision and more!



100" High Resolution LCD Front Proj.....\$1995
60" RCA PIP, Surround, Univ Remote\$1999
50" Dolby Pro Logic Rear Projection\$1999
45" Cinema Wide PIP Surround.....\$1599
35" Tube MTS Stereo & Surround.....\$999
25" Philips Table Top w/Remote.....\$259

RCA
DIGITAL SATELLITE SYSTEM
NOW AVAILABLE WITH INSTALLATION AROUND THE USA

- 175 Channel Capability
- CD Quality Surround Sound
- Laser Disc Quality Video Image
- Small 18 Inch Dish
- Fast Easy Installation available throughout the entire USA & Canada



Starting at \$599

laser combi players



425 lines of resolution & CD audio all wrapped
into one package!

Pioneer CLDV-860 Laser Karaoke...Reduced!
NEW60 Disc CD Changer\$249
24 Disc CD Changer\$199
100 Disc CD Changer\$349
CD & Laser Video with auto reverse...\$379

To finish the system off a great pair of room shaking

loudspeakers Bose, Advent, BIC & more!



Two Rear & One Center Channel Pkg\$99
Front Channel Bookshelf Speakers.....\$79
Mitsubishi Dual Satellite Speaker &
Subwoofer System\$199
6 Pc. Full Surround System w/subwoofer\$549

bookshelf mini systems

Dual Cassette, 24 CD Changer 200 watts...\$369
Dual Cassette, 3 CD Changer 100 watts.....\$299

We carry all
your favorite
makes and
models.
Please call
for your best
delivered
price!



AUTHORIZED
ELECTRONICS **SAVE**
ONE CALL DOES IT ALL

1-800-374-7125

SAMMAN'S ELECTRONICS 1166 HAMBURG TPKE. WAYNE, NEW JERSEY

All prices quoted include Manufacturer's standard accessories & U.S. Warranty.

All units are factory sealed. We ship within 24 hours. Customer Service 201-696-6531

SALE

BEACH

BRINGING YOU THE FUTURE OF ELECTRONICS TODAY!

203 Route 22 East, Greenbrook NJ 08812

New York Prices.....With New England Service!

FOR INFORMATION.....1-908-424-1101 NJ & CANADA.....1-908-424-1101

24 HR FAX ORDER LINE 1-908-424-1105 CUSTOMER SERVICE.....1-908-424-1103



**SATISFACTION
GUARANTEED!**
IN 15 DAYS OR YOUR MONEY BACK!



TO ORDER CALL TOLL FREE!
1-800-572-3224

New Jersey Resident add 6% Sales Tax

**OPEN
SUNDAY**

**NO TAX IF
SHIPPED
OUT OF NJ!**

**ASK FOR
EXPRESS
DELIVERY!**

**SCHOOL, GOVT
& CORPORATE
P.O.'S ACCEPTED**

JOIN THE THOUSANDS OF SATISFIED BEACH CUSTOMERS! WELCOME TO "TOTAL USA WARRANTY" AT THE LOWEST LEGITIMATE PRICES

Our Advertised items include Full USA Manufacturers Warranty which means all merchandise is Brand New, Factory Fresh and is Warrantied by the Manufacturer & are the same items you find in your local video/electronics store, but at much lower prices and door to door service! Shop Beach and buy what you want to buy! Our friendly Sales Associates will make you a lifetime customer! Let Us Make You Happy Shop Beach! Wishing you a healthy and happy holiday season!

SONY

USA Manufacturer's Warranty
on all Sony Products!



FREE CASE & TRIPOD!
8MM **\$699⁹⁹**

SONY USA 8MM CAMCORDERS

CCD TR700.....CALL CCD TR23.....499.99
CCD TR600.....CALL CCD TR-V70 1289.99
CCD TR400.....CALL CCD TR-V40 879.99
CCD TR100.....CALL CCD TR-V30 699.99
CCD TR93.....699.99 CCD FX630.....579.99
CCD TR83.....649.99 CCD FX230.....479.99
CCD TR73.....589.99 CCD VX3.....CALL
CCD TR33.....529.99 CCD VX1 PAL.....CALL
PAL SYSTEMS.....CALL

NEW SONY DCRVX-1000 CAMCORDER.....CALL

NEW SONY CCD-TR3000 CAMCORDER.....CALL

**WE WILL MEET OR BEAT YOUR LOWEST
LEGITIMATE PRICE ON ANY SONY PRODUCT!**

SONY USA 8MM VCRS

NEW EVC-200.....CALL EVA-50.....CALL
EVC-100.....CALL EVS-5000.....CALL
GV-50.....CALL EVS-7000.....CALL

NEW SONY USA VHS VCRS

SLV-340.....239.99
SLV-440.....249.99
SLV-840HF.....329.99 SLV-R1000.....CALL
SLV-780HF.....349.99 SLV-800.....CALL
SLV-940HF.....379.99 SLH-2000.....CALL

Nikon

The Best Quality Camcorders!

8MM CAMCORDERS

NEW VN-400 SAME AS SONY CCD-TRV50.....CALL

NEW VN-360 SAME AS SONY CCD-TR93.....CALL

GO.VIDEO

"USA" DUAL DECK VCRS

NEW GV8020 8MM VHS.....669.99
NEW GV8050 PC COMPATIBLE.....769.99
GV 3090.....CALL GV 3060.....689.99
GV 3080.....CALL GV 4060.....CALL
GV 3020.....539.99

MITSUBISHI

USA Manufacturer's Warranty Included!

WANT TO BUY A MITSUBISHI VCR? CALL US

VCRS

U100.....CALL U560.....CALL
U200.....CALL U760.....CALL
U250.....CALL U770.....CALL
U510.....CALL 3 YEAR WARRANTY.....CALL
MITSUBISHI TELEVISIONS.....CALL

PIONEER

GREAT HOME THEATER

USA Manufacturer's Warranty!



RECEIVERS

VSX-D903S.....CALL VSX-453.....CALL
VSX-D704S.....CALL SX-303R.....CALL
VSX-D604S.....CALL SX-253R.....CALL
VSX-D504S.....CALL SX-203.....CALL
VSX-454.....CALL VSX-D3S.....CALL

LASER KARAOKE PLAYERS

CLD-V750.....CALL CLD-D904.....CALL
CLD-V850.....CALL CLD-D504.....CALL
CLD-V704.....CALL CLD-D604.....CALL

Panasonic

USA Manufacturer's Warranty on all
Panasonic Products!



FREE CASE & TRIPOD!
VHS-C **\$629⁹⁹**

USA VHS-C CAMCORDERS

PV1Q-505.....629.99 PV1Q-205.....509.99
PV1Q-305.....539.99 PV-54.....839.99
PV1Q-405.....579.99 PVS-64.....CALL
NEW PVD-705 DIGITAL SPECIAL EFFECTS.....CALL
NEW PVD-1000.....CALL

USA VHS CAMCORDERS

NEW PV950 COLOR VIEWFINDER.....529.99

PV-960.....599.99 PV-S 770.....CALL

NEW 1995 USA VHS VCRS

NEW PV-2501 2 HEAD, PROGRAM DIRECTOR.....179.99

NEW PV-4501 4 HEAD, REMOTE.....189.99

NEW PV-4511 4 HEAD, VCR PLUS.....199.99

NEW PV-4514 4 HEAD, HEAD CLEANER.....214.99

NEW PV-4551 4 HEAD, HI-FI, MTS.....259.99

NEW PV-4561 HI-FI, MTS, BILINGUAL.....269.99

NEW PV-4562.....289.99

NEW PV-4564 2 VCR CONTROLS, HI-FI.....319.99

NEW PV-4566 S-VHS, JOC SHUTTLE.....CALL

NEW PVS-4566 S-VHS, HI-FI, VCR PLUS.....379.99

NEW PVS-4580 S-VHS, T.R.C., JOC, HI-FI.....679.99

JVC

USA Manufacturer's Warranty on all JVC Products!



VHS-C CAMCORDERS

NEW GRAX-900 EIS, COLOR.....649.99

NEW GRAX-800 EIS.....599.99

NEW GRAX-700 COLOR.....549.99

NEW GRAX-200.....499.99

NEW GRAX-350.....529.99

NEW GR-SZ7.....979.99

NEW GR-SZ9.....1129.99

VCRS

HR-S7100.....569.99 HR-VP628U.....CALL

HR-S5100.....519.99 HR-J620.....239.99

HR-VP720.....369.99 HR-J410.....179.99

HR-VP618.....299.99 HR-J220.....189.99

HR-S5200.....539.99 HR-S7200.....599.99

RCA

NEW 1995 MODELS!

BONUS FREE CASE & TRIPOD!

USA Manufacturer's Warranty Included!

8MM CAMCORDERS

NEW PRO 884MB 4-4 COLOR VIEWFINDER 241 EIS.....999.99

PRO 846 241 200M, COLOR VIEWFINDER.....NEW!

PRO 932 241 200M, COLOR VIEWFINDER, EIS.....NEW!

PRO 942 241 200M, COLOR VIEWFINDER, EIS.....NEW!

VHS COMPACT CAMCORDERS

CC 603 121 200M, TITLER, 1 LUX, MACRO.....NEW!

CC 612 121 200M, TITLER.....NEW!

CC 616 COLORVIEWER, 12-1 2M, 1 LUX, REMOTE.....NEW!

CC 620 241 200M, COLOR VIEWFINDER EIS.....CALL

VHS CAMCORDERS

CC 414, 420, 422, 547.....CALL

VCRS

VR 721HF S-VHS, HI-RESOLUTION, DIGITAL.....CALL

VR 725HF FER, DIGITAL SHUTTLE, S-VHS, OSS.....NEW!

RCA DSS SATELLITE.....CALL

Canon

USA Manufacturer's
Warranty Included!



BONUS FREE CASE & TRIPOD!

ES-2000

ES-800

ES-600

ES-550

**Lowest
Price
Guaranteed**

ES-5000

NEW!

EYE START AUTOMATION

HI BAND 8MM

20X1 ZOOM

STABILIZATION

DIGITAL EFFECTS

HIFI STEREO SOUND

COLOR VIEWFINDER

SHARP

VIEWCAM

USA Manufacturer's Warranty!

Authorized Dealer

VL-H420U

\$999⁹⁹

NEW SHARP REBATES

Hi-8 Viewcam, 4" Color LCD Screen,

270° Variable Angle Recording

Now Is The Time To Buy New Model!

8MM VIEWCAMs

NEW VLE-37.....499.99*

NEW VLE-47.....699.99*

NEW VLH-420.....999.99*

NEW VLH-450.....CALL

SLIMCAM VHS CAMCORDERS CALL

***PRICES LISTED AFTER SHARP REBATES**

HITACHI

USA Manufacturer's Warranty Included!

"USA" CAMCORDERS

VM-E310 COLOR VIEWFINDER.....NEW

VM-E410A 24-1 ZOOM, EIS, 16:1 FADE.....NEW

VM-E510A 270K CHIP, CLR VIEWFINDER, EIS, TITLER.....NEW

VMH-710A.....NEW

VMH-54.....CALL VME-58.....CALL

VMH-56.....CALL VME-59.....CALL

VMH-71.....CALL

VM1700, 2800, 3800.....CALL

"USA" VCRS

VTF-270 4 HEAD, FRONT A/V.....CALL

VTF-282 4 HEAD, VCR PLUS.....CALL

VTF-284 4 HEAD, VCR PLUS.....CALL

VTF-370 4 HEAD, HI-FI STEREO.....CALL

VTF-380 4 HEAD CALL VTF-391 6 HEAD CALL

VTF-382 6 HEAD CALL VTF-482 6 HEAD CALL

VTS-772 5 HEAD, S-VHS.....CALL

PAL SYSTEM

CAMCORDERS AND VCR'S

SONY, PANASONIC, JVC,

SHARP, AIWA, AKAI

FULL INVENTORY AT THE LOWEST PRICES

PRO VIDEO & DIGITAL IMAGING

Panasonic

PRO INDUSTRIAL

HEADQUARTERS



S-VHS **\$1689⁹⁹**

USA Manufacturer's Warranty Included!

GUARANTEED LOWEST PRICES!

PRO INDUSTRIAL SYSTEM

AG-456 4-1/2" VHS, MANUAL 2 AF.....1689.99

AG-195 VHS DIGITAL EFFECTS.....949.99

NEW AG-DP800 SUPERCAM, 3 CCD.....CALL

PRO INDUSTRIAL VCRS

AG-1970 TBC, EDIT VCR.....1139.99

NEW AG-1980.....CALL

AG-1290 4 HEAD VCR.....CALL

NEW AG-1300.....CALL

AG-5700 PORTABLE AG-1970.....CALL

CT-1383Y, 1384 VV MONITOR.....CALL

PRO DIGITAL MIXERS

WJ-MX30 DIGITAL AV MIXER.....CALL

WJ-MX50 CHROMANCE KEY.....CALL

WJ-AVE5.....789.99 WJ-AVE7.....839.99

JVC

PROFESSIONAL

USA Manufacturer's Warranty Included!

PROFESSIONAL CAMCORDERS

GYX2U.....CALL

JVC EDIT DESK.....IN STOCK

PROFESSIONAL EDITING DECKS

BR-380U, BR-378U, BR-360U, BR-380U,

RECORDER RM-6800 CONTROLLER.....CALL

NEW! HRS-7200

PRO EDITING VCR

PRO S-VHS 400 LINES OF RESOLUTION

HIFI STEREO SOUND

PRO EDITING FEATURES **\$599⁹⁹**

HRS-5200.....539.99

NEW! SONY

SVO-2000 EDIT SYSTEM

IN STOCK CALL!

USA CAMCORDER PACKAGES Buy These Packages & Save!

USA BEGINNERS PACKAGE

Includes: 5 VIDEO TAPES, DELUXE CAMCORDER CASE, STRAP, FULL SIZE VIDEO TRIPOD, HEAD CLEANER, VIDEO LIGHT, DELUXE CLEANING KIT AND USA WARRANTY A \$300 VALUE! **\$149⁹⁹ ONLY**

USA ADVANCED PACKAGE

Includes: HIGH POWER EXTRA BATTERY, 6 VIDEO TAPES, DELUXE CAMCORDER CASE, STRAP, FULL SIZE VIDEO TRIPOD, VIDEO REMOVER, VIDEO LIGHT, CAR CORD ADAPTER, UV PROTECTION FILTER DELUXE CLEANING KIT & USA WARRANTY A \$450 VALUE! **\$249⁹⁹ ONLY**

USA PROFESSIONAL PACKAGE

Includes: 2 HIGH POWER EXTRA BATTERIES, PRO DLX CAMCORDER CASE, PRO DELUXE FLUID HEAD VIDEO TRIPOD, 10 VIDEO TAPES, CAR CORD ADAPTER, DLX VIDEO WIDE LENS, FLUX THREE PIECE FILTER KIT, DELUXE CLEANING KIT & USA WARRANTY A \$450 VALUE! **\$349⁹⁹ ONLY**

SONY

SONY PROFESSIONAL



EVW-300 3CCD HI8 PRO CAMCORDER.....CALL

SVW-2000 SVHS EDIT VCR.....CALL

RM-250 EDIT CONTROLLER.....CALL

PWM-637 BETAcam 50 CAMCORDER.....CALL

DPS-300 ONE SWITCHER.....CALL

PWM-135AQ, 195AQ COLOR MONITORS.....CALL

SVW-1500 4 HEAD VCR.....CALL

**LARGEST
AUTHORIZED
DEALER IN NORTH AMERICA.**
CALL TODAY AND FIND OUT
WHY 80% OF OUR CUSTOMERS
ARE REPEAT AND REFERRAL!

POWERVIDEO

A DIVISION OF VIDEOLAND, INC.

ORDER 7 DAYS A WEEK! Mon-Fri 8:30 - 7pm Sat: 8:30 - 5pm Sun 12-5pm



NO CREDIT CARD SURCHARGES

SONY

Hi8

PAL/SECAM SYSTEMS

Call for the entire selection of SONY camcorders at Guaranteed lowest prices!

JVC

VHS

GR-SZ9

Select from GR-AX900, GR-AX800, GR-AX700

Panasonic

VHS

PV-IQ205

Call for All types of new Palmcorders!

HITACHI

Hi8

VM-H710A

Choose from VM-E410A, VM-E510A, VM-H81A

SHARP

Hi8

VL-H450u

We Carry VL-E47, VL-H420u, VL-E37

TOP OF THE LINE HI-FI STEREO VCRs

SONY

Industrial Sony VHS VCRs

SVO-1410 Shuttle, Edit., 4 Head Mono.
SVO-1610 Shuttle, Edit., 4 Head Hi-Fi Stereo

Call for the complete line of Sony VHS VCRs

Guaranteed Lowest Prices On Every SONY VCR!

JVC

Six Head Hi-Fi Stereo VCRs

HR-S7200 S-VHS, Cab. Cont., Univ jog Rem.
HR-S5200 S-VHS, Edit, Univ Rem. more
HR-VP720 Jog Remote, Cable Cont., Rand Edit
HR-VP624 VCRPlus+, Cable Cont., On-Screen

Guaranteed Lowest Prices On Every JVC VCR!

Panasonic

Six Head Hi-Fi Stereo VCRs

PV-54580 S-VHS, TBC, VCRPlus+ Univ jog Rem.
PV-54566 S-VHS, Edit, Univ Rem. more
PV-4564 Dyna Head, Cable Cont. Univ Rem
PV-4562 Dyna Head, VCRPlus+, Multi-Remote

Guaranteed Lowest Prices On Every Panasonic VCR!

HITACHI

Six Head Hi-Fi Stereo VCRs

VT-S772A S-VHS, Edit Control Univ jog Rem.
VT-UX605AS-VHS, Edit, VCR+, Cab. Cont., Jog
VT-F494A Auto Clock, Cable Cont. Illum. Rem
VT-F391A Auto Clean, VCRPlus+, Multi-Remote

Guaranteed Lowest Prices On Every Hitachi VCR!

TOSHIBA

Eight Head Hi-Fi Stereo VCRs

M-781 DNR, Pro-Drum Edit Control Univ jog
M-761 VHS, Edit, VCR+, Cab. Cont., Jog
M-751 Auto Clock, Cable Cont. Illum. Rem
M-661 Six Head, VCRPlus+, Multi-Remote

Guaranteed Lowest Prices On Every Toshiba VCR!

HOME THEATER RECEIVERS

**OVER
250
Receivers
To Choose From**

JVC

Call us today for the guaranteed lowest prices on THX, Dolby Surround AC-3, and Dolby Pro-Logic Home Theater receivers. Choose from the largest selection of audio processors, amplifiers, and pre-amps or receiver to complete your Home Theater. Power Video only carries the finest from the industry leaders—all at incredible savings.

CD PLAYERS

Select from Single, 5 Disc, or 100 Disc CD Changers!

PowerVideo has all the major brands when it comes to CD Changers. Choose from over 100 different models from the top manufacturers—all at the guaranteed lowest prices!

HOME THEATER SPEAKERS

BOSE

Bring home the theater with Bose Accoustimass series speakers or our complete line of JBL Sound Effects and THX systems.

LASERDISC PLAYERS

Call today for the guaranteed lowest price on our entire selection of Dual Sided Laserdisc Players or Karaoke Laserdisc Players from the industries top manufacturers. Delivering up to 425 line horizontal resolution and CD quality audio, the laserdisc represents the ultimate in picture and sound!

PowerVideo has over 50 laserdisc players to choose from.

PIONEER

Choose from CLD-V860, CLD-V760, CLD-V370, CLD-V350

Panasonic

Select from LX-H670, LX-900, LX-K770

SONY PERSONAL ELECTRONICS

CALL FOR THE LARGEST SELECTION OF SONY BRAND MINI-SYSTEMS

- CD CLOCK RADIOS • DISCMAN
- WALKMAN • MIN-DISC RECORDERS
- CORDLESS PHONES • WORLD BAND RADIOS AND MUCH MORE!

Bose Accoustimass 7 Series II

JBL

Call us for the entire selection of main channel, center channel, surround channel and subwoofer speakers—all at the guaranteed lowest prices. PowerVideo also recommends **Monster Cable** to complement and complete your home audio/video system!



~~\$3⁵⁰ COVER PRICE~~

as little as \$1.33 a copy!

YES! Enter my subscription to VIDEO now!

- ☐ 1 year (10 issues) for \$17.94—\$1.79 a copy!
- ☐ 2 years (20 issues) for \$29.94—\$1.50 a copy!
- ☐ 3 years (30 issues) for \$39.94—\$1.33 a copy!

Name _____ (please print full name) BM3B

Address _____

City _____

State _____ Zip _____

CHECK ONE: ☐ Payment enclosed ☐ Bill me

Canadian orders add \$7.00 per year (includes 7% GST); foreign orders add \$7.00 per year; payment in U.S. funds must accompany order. Please allow 30 to 60 days for delivery of first issue.

Would you like to receive special offers from qualified users of our mailing list? ☐ Yes ☐ No



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST-CLASS MAIL PERMIT NO. 483 MARION, OH

POSTAGE WILL BE PAID BY ADDRESSEE

*VIDEO*TM

P O BOX 1981
MARION, OH 43306-2081



1-800-877-2900

Customer Service: 713-772-4400 • Fax: 713-772-6500

- All products are factory sealed—no demos or refurbished goods.
- Overnight shipping available
- School and Government Purchase orders welcomed

“I bought my friend's VCR and camcorder from Powervideo. Not only were the prices great, but the people were very helpful with which items would work best for us. They even delivered everything the next day, just in time for his birthday!”



Canon



L2

Call for a huge selection of Canon camcorders at Guaranteed prices!

Canon



ES-2000

Flexi-Zone AF/AE, 20X Zoom
We Carry ES-800, ES-600, ES-90

Canon



ES-5000

Exclusive Eye Control Technology!
Hi-8, 40X Zoom, Color ViewFinder

Panasonic



AG-456

Call for Industrial Panasonic Cams

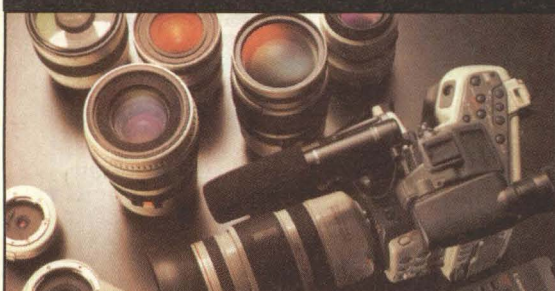
JVC



GR-AX800

Select from All Types of New JVC Camcorders!

CAMCORDER ACCESSORIES



Lenses • Lights • Filters • Extended Batteries • Tripods
• Carry Cases • Marine Packs • Color LCD Monitors • Blank Tapes



The ultimate accessory connection for chargers, Velbon and Bogen tripods, lights by Sima and Canon, filters, lenses,

Azden microphones, soft and hard cases, under water housings, blank tapes, cables, and much more! Let the professionals at PowerVideo put the right package at the right price together for you!



PHILIPS Priority SERVICE CONTRACT

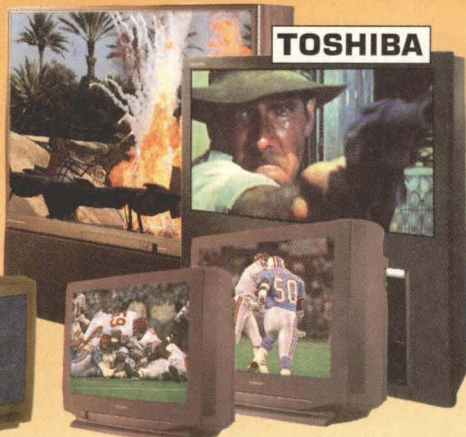
Ask about our 2, 3, and 5 year extended service contract with maintenance!



BIG SCREEN TELEVISIONS



JVC



TOSHIBA

OVER 200 Televisions To Choose From

Select from 5" TVs to 240" Big Screen Televisions
Every Major Brand Big Screen at the Lowest Price Guaranteed!

All Televisions are shipped within 24 Hours of your order.
Every Television is shipped individually on a pallet—protecting your valuable investment.

JVC

16:9 WideScreen	35" Tube TV	31" Tube TV	27" Tube TV
NV-55BX6	AV-35BP6	AV-31BM6	AV-27BM6
NV-55BH6	AV-35BH6	AV-31BP6	AV-27BP6
		AV-31BH6	AV-27BH6

Guaranteed Lowest prices on JVC Televisions!

TOSHIBA

Big Screen TVs	35" Tube TV	32" Tube TV	27" Tube TV
TP-48E60/61	CF-35E50	CF-32E50	CF-27E50
TP-55E50/51	CX-35E60	CX-32E60	CF-27E55
TP-55E80/81	CX-35E70	CX-32E70	CV-27D48

Choose From 61" TP-61E80 or 16:9 TW-56D90!

AUDIO VIDEO EDITING EQUIPMENT

VIDEONICS

A great combination: MX-1 Effects Mixer, AB-1 Edit Suite Controller and TM 2000 Titler and the new VP-1 Video Palette! Buy one at a time or buy the entire system to edit your favorite home and professional movies.

ALL AT THE GUARANTEED LOWEST PRICE!



A new star combination:

Using the Panasonic WJ-AVE7 Digital AV Mixer and the WJ-TTL5 Titler offer numerous effects for A/B mixing. In addition to special effects, like dissolve, strobe, still, and mosaic, this system provides innovative methods for getting professional editing results at home!

ALL AT THE GUARANTEED LOWEST PRICE!



Panasonic



CHRISTMAS SALE!

Save on cable rental fees!

CABLE TV DESCRAMBLERS

**WE'LL BEAT
ANY PRICE!**

**CALL TOLL-FREE
1-800-284-8432**

**COMPATABLE REPLACEMENTS
FOR MOST MAJOR SYSTEMS**

**24 HOUR SHIPMENTS!
QUANTITY DISCOUNTS!**

30 DAY MONEY BACK GUARANTEE!

Mastercard • American Express • Visa • C.O.D.

HAVE MAKE AND MODEL NUMBER OF EQUIPMENT USED IN YOUR AREA

1-800-284-8432

FOR ORDERS ONLY

For technical & customer service: 305-749-3122

ALL SHIPPING & HANDLING FEES AT CUSTOMER'S EXPENSE

Anyone implying theft of service will be denied assistance.

CABLE WAREHOUSE

10117 WEST OAKLAND PARK BLVD., SUITE 315, SUNRISE, FL 33351

NO FLORIDA SALES

TIPS FOR MAIL ORDER PURCHASERS

It is impossible for us to verify all of the claims of advertisers, including product availability and existence of warranties. Therefore, the following information is provided for your protection.

1. **Confirm price and merchandise information** with the seller, including brand, model, color or finish, accessories and rebates included in the price.
2. **Understand the seller's return and refund-policy**, including the allowable return period, who pays the postage for returned merchandise, and whether there is any "restocking" charge.
3. **Understand the product's warranty**. Is there a manufacturer's warranty, and if so, is it from a U.S. or foreign manufacturer? **Note that many manufacturers assert that, even if the product comes with a U.S. manufacturers warranty card, if you purchase from an unauthorized dealer, you are not covered by the manufacturer's warranty. If in doubt, contact the manufacturer directly.** In addition to, or instead of, the manufacturer's warranty, the seller may offer its own warranty. In either case, what is covered by warranty, how long is the warranty period, where will the product be serviced, what do you have to do, and will the product be repaired or replaced? You may want to receive a copy of the written warranty before placing your order.
4. **Keep a copy of all transactions**, including cancelled checks, receipts and correspondence. For phone orders, make a note of the order including merchandise ordered, price, order date, expected delivery date and salesperson's name.
5. **If the merchandise is not shipped within the promised time** or if no time was promised, 30 days of receipt of the order, you generally have the right to cancel the order and get a refund.
6. **Merchandise substitution** without your express prior consent is not allowed.
7. **If you have a problem with your order or the merchandise**, write a letter to the seller with all the pertinent information and keep a copy.
8. **If you are unable to obtain satisfaction from the seller**, contact the consumer protection agency in the seller's state or your local Post Office.

If, after following the below guidelines, you experience a problem with a mail order advertiser that you are unable to resolve, please let us know. **WRITE to Scott Constantine, Video Magazine, 45th floor, Hachette Filipacchi Magazines, Inc., 1633 Broadway, New York, NY 10019. Be sure to include copies of all correspondence.**

PLANET ELECTRONICS

8418 LILLEY RD. CANTON, MICHIGAN 48187

WHERE YOUR SATISFACTION IS EVERYTHING!

CODE V197

NOBODY BEATS US!

SONY VCR's • TV's • AUDIO
CAMCORDERS • VIDEO PRINTERS

SONY

PRO-LINE
Panasonic

PANASONIC CAMCORDERS
AG455 AG195 AG3
EDITORS
WJMX30

VCR's
AG1290
AG1970
AGW1

TV's
CT2084VY
CT1384VY

Panasonic

PANASONIC VCR's
CAMCORDERS • TV's • EDITOR • VIDEO PRINTERS



Canon

WE STOCK ALL
THE CANON
CAMCORDERS

JVC
JVC VCR's
TV's • CAMCORDERS • CD's
AUDIO/VIDEO RECEIVERS
CASSETTE DECKS



RCA

RCA VCR's
TV's DSS
CAMCORDERS



GO.VIDEO GO.VIDEO
VIDEO DECKS • VHS • 8MM

Planet Has the Accessories You Need Too!

**CAMCORDER
BATTERIES**
We Stock'em All.
Just Call!

bogen

BOGEN TRIPODS

3124 Dolly
3016 Monopod
3116 Mini
3140 Pro

3144 Shoulder
3179 Tri-pod
3170 Tri-pod
3160 Tri-pod

sima

SIMA VIDEO EDITORS

TITLERS • LIGHTS
MIXERS • BATTERY
REFRESHERS

GoldStar
VIDEODECK
8MM TO VHS

RECOTON
900 MHZ SIGNALS

NADU

NADY PRO VIDEO
MIC's • HEADPHONES

VIDEONICS

EDIT-SUITE • VIDEO MIXER
TITLE MAKER 2000 • THE EQUALIZER
SOUND EFFECTS BOX • THUMBS UP

CITIZEN

CITIZEN CAMCORDER MONITORS
LCD 3" COLOR MONITOR M329
LCD 4" COLOR MONITOR M938

AZDEN

IMPROVE CAMCORDER PERFORMANCE
AZDEN LENS • REWINDERS • MIXERS

AZDEN VIDEO MIC's

Video and Audio, Planet's Got it All! Just Call!

BOSE
Better sound through research.

JVC

**PLANET
ELECTRONICS**

SONY
AUDIO

aiwa

Sherwood

800-247-4663

IN MICHIGAN CALL 1-313-453-4750

Call with an Order or Questions Today, and Ask for a Free Catalog!

NO CREDIT CARD FEES!

MasterCard

VISA

Discover

C.O.D.



FREE CATALOG

CALL 800-247-4663 FOR YOUR
FREE COPY OF OUR LATEST 64 PAGE
PLANET AUDIO AND VIDEO CATALOG
FILLED WITH SPECS AND PRICING ON EVERYTHING
FROM CAMCORDERS TO VCR'S, TV'S AND ALL THE BEST
STATE OF THE ART AUDIO AND VIDEO PRODUCTS!

The Planet Policy of Customer Satisfaction

Planet Electronics wants to be your source for video and audio equipment. With your satisfaction in mind, we offer the best deals possible on brand-new merchandise and support it with full service before and after the sale. Our success rests on satisfied customers and we greatly value your repeat business and referrals. We offer no "backdoor deals", "special prices on refurbished products", or use any "bait and switch" or "hidden charges" tactics. All Planet Electronics merchandise is fully factory authorized and factory sealed, brand-new merchandise that we have priced below average retail prices. We want our customers to get the best deal on the best merchandise with the best service available anywhere.

**AT PLANET
WE
WELCOME
YOUR
PHONE CALLS!**

Blank Tape



Maxell • Sony • TDK
JVC • Scotch • Fuji
All Formats! Call!

**CAMERA
WORLD**

CAMERA WORLD OF OREGON

Serious Entertainment.

*Your Source for All You Need
to Bring Home Theater to Life!*

HI-FI COMPONENTS**BIG SCREEN TVs****SPEAKERS****AUTHORIZED
SONY
MAIL ORDER DEALER**

CIRCLE NO. 47 ON READER SERVICE CARD



**SONY • PIONEER • JVC
JBL • KLH • TOSHIBA
HARMAN / KARDON
AIWA • CANON • NIKON
MINOLTA • OLYMPUS**

It's Finally Here!**GET YOUR
FREE '95/'96
CATALOG!**

Simply call our Catalog
Hot Line and leave
your name
and address!

**1-800-729-8940**

EMAIL: 72303.1734@Compuserve.com • WEB PAGE: www.cameraworld.com • FAX (503) 222-7070 • TOLL (503) 227-6008

THE ELECTRONIC MAILBOX

THE VIDEO EDITING & PRODUCTION EXPERTS**800-323-2325****WE KNOW OUR STUFF**
staff of courteous, informative, sales professionals**10 DAY MONEY BACK 30 DAY
TRADE-IN GUARANTEE POLICY**

10-12 Charles St, Glen Cove, NY 11542 FAX 516-671-3092 • TECH ADVICE HOTLINE 516-759-1943

sima

SFX-M

Desktop Video Effects ... without the computer!

Dazzle your friends & family with Hollywood type special effects. Sima's fabulous new SFX-M gives you all of these digital video effects at a very affordable price:

STUDIO STYLE TRANSITIONS AND EFFECTS

Dual Time Base Correctors (TBC) provide true dissolves and A/B wipes from one moving picture into another. Two moving pictures can also be simultaneously displayed.

REAL BLUE-SCREEN CHROMA KEY

The blue key superimposes you onto any moving background image—just like the TV weather man. Put yourself into your favorite movies!

HUNDREDS OF DIGITAL SPECIAL EFFECTS

Create hundreds of different, exciting combinations with STILL, three STROBE SPEEDS, two PAINT levels, three MOSAIC levels, and COLOR NEGATIVE

HUNDREDS OF COLORFUL WIPES AND FADES Combine wipes and fades with special effects to create a virtually unlimited palette of transitions. Adjustable wipe angle and wipe edge

EASY TO SET-UP AND FUN TO USE Two inputs/outputs with separate monitor jacks. Works with all formats including S-VHS & Hi8.

BUILT IN STEREO AUDIO MIXER.

Model # SIMA SFX-M **\$599⁰⁰** (Reg. \$799)
Introductory Special

Deluxe gold tipped S-VHS Cable Kit **\$29.95**

Sale expires
12/31/95

**DISSOLVES...
A/B WIPES...
CHROMA KEY...
UNDER \$600!**



CIRCLE NO. 28 ON READER SERVICE CARD

new west electronics

a division of Clarity Electronics LTD. • 4120 Meridian Bellingham, WA 98226 • fax (360)734-3314

NORTH AMERICA'S AUDIO / VIDEO SPECIALIST!

CAMCORDERS • EDITING GEAR • TVs
MONITORS • PRO VIDEO • VCRs
AUDIO SEPARATES AND COMPONENTS
DSS • AC3 • THX • BIGSCREENS

*Don't miss the next best thing
to being here, it's... **new west**
<http://www.newest.com> **on the NET!***

**ALL PRICES INCLUDE FREE
FEDERAL EXPRESS DELIVERY**

GREAT PRICES • EXCELLENT SERVICE

WE ARE PROUD TO OFFER:

- PIONEER • HARMAN KARDON • AR • KENWOOD • JVC •
- INFINITY • ALTEC • AIWA • SONY • RCA • SHARP • B&K •
- TOSHIBA • HITACHI • PREMIERE • MONSTER CABLE •
- GO-VIDEO • PANAMAX • KIMBER • AND MUCH MORE! •

FedEx

CODs & POs
WELCOME!



ALL TIMES PST: M-F 6:30A to 6:30P/SAT 7:00A to 6:00P/SUN 8:00A to 5:00P

800-488-8877

PLEASE ASK ABOUT OUR RETURN AND EXCHANGE POLICIES

CIRCLE NO. 13 ON READER SERVICE CARD

**DON'T
MISS
THESE
AWESOME
DEALS!**

RECEIVER DSS

**NEW LOW PRICES &
PACKAGE SPECIALS!**

**ONE MONTH OF USSB *FREE*
WITH SYSTEM PURCHASE!**

CALL FOR DETAILS

Canon

ES5000

EYE CONTROL CAMCORDER

Give us a call
for a great
price on
Canon's
revolutionary
new
camcorder!



ALL CANON MODELS IN STOCK!

SPECIAL OF THE MONTH

CALL TODAY

**FOR A SUPER PRICE
ON THIS SUPER DECK!**

RCA

VR725HF

SUPER VHS VCR



features:
DSS receiver control,
S-VHS, 4-heads,
Hi Fi stereo audio,
VCR plus+,
flying erase head,
A/V dubbing,
shuttle search
and much more!



PIONEER

**ALL PROJECTION TELEVISION AND
COMPONENT MODELS IN STOCK!**

VIDEO

MAGAZINE

For Advertising Information call 1-800-445-6066, 9am - 5pm EST

PLEASE NOTE: It is impossible for us to verify all of the claims of advertisers, including product availability and existence of warranties. To confirm that an advertiser is authorized to sell a product, we suggest you contact the manufacturer directly. Please review our *Tips for Mail Order Purchasers*.

AUTHORIZED

FRIENDLY ADVICE! FREE SHIPPING! CATALOG! PHILIPS, MIRAGE—MORE! TV'S, LASER DISC PLAYERS, VCR'S, CAMCORDERS. READ BROTHERS: (803) 723-7276.

MOVIES/FILMS/VIDEOS

1,000,000 VIDEOMOVIES/SOUNDTRACK LPS! Video catalogue—\$1.00. Descriptive catalogue—\$9.95. "B" catalogue—\$3.00. Posters—\$1.00. Soundtracks—\$1.00. RTS/VE02, Box 93897, Las Vegas, Nevada 89193.

SPRING '95 RELEASES. Karate, ballet, family "portraits", Naturalist videos. Catalog \$3. Natuurlijk, Box 5278V1, S.M. CA 90409.

NUDE CONTESTS Videos. Glamour, Athletic, Amateur, Unix. S.A.S.E. for Brochure. Classic Productions, Box 952, Dept. VI, Metairie, LA 70004.

VIDEOS! Nudist, Adult, more! Exclusives! Super Discounts! Complete Catalog—FREE! F.P.(V), CP116F, Toronto, Canada, M4Y-2L5.
RIO—MARDI GRAS—SPRING BREAK! WORLD'S MOST EXOTIC PARTIES. VHS 60 MINUTES—\$9.95. TOLL FREE 1-800-859-5926. A.L.M. PRODUCTION, DEPT. VI, P.O. BOX 1517, FT. LAUDERDALE, FL 33302.

GM VIDEO PRESENTS: Social Nudism on the Colorado River during Spring Break, Memorial Day, Independence Day, Labor Day!! Over 85 videos! Preview Videos (2hrs. & 55mins.): \$25. Catalog: \$1.00. Check/M.O. to: GM VIDEO, Dept. VI, POB 1339, Sedona, AZ 86339. Visa/MC: 1-800-829-1285.

We supply all kinds of Hard to get Videos from Europe. Full detailed catalog—US \$10.00 CASH. Write to: BTR Enterprises, P.O. Box 46, 1130 AA Volendam, Holland. Tel: 011-31-6528-46958.

FRENCH LOTUS AT RIVIERA BEACHES, Tahitian Dancers, Rio Carnival. Catalog \$3.00 Video \$50.00. BRAZIL VIDEO, P.O. BOX 8572, LAJOLLA, CA 92038.

AMATEUR ADULT VIDEOS. Exclusives! Videotape sample: \$9.95. AMERICA PICTURES, Dept. V, 309 Judah, San Francisco, CA 94122. (415) 566-1212. Visa/MC.

THE MACABRE VIDEO—Underground Cult/Horror Obscurities. Taboo subjects. Catalog \$4.95. M.S.B., Route 1, Box 32, Appomattox, VA 24522.

SOCIAL NUDISM. Candid European videos. Rare family pageants. Catalog \$3. Natfam(VV), Box 838, Venice, CA 90294.

FREE Search Service: every title worldwide. Buy • Sell • Trade • Rent • Auction. Anytime: 1-800-849-7309; FAX: 1-770-227-0873.

NINETEEN SENSUOUS AMATEUR PLAYMATES' VIDEO FROLIC. \$19.95: Odyssey, Dept. VI, POB 230902, Encinitas, CA 92023. Visa/MC: 1-800-755-6595. Free Catalog.

NEW '95! NUDIST FAMILY CONTESTS. BEAUTY PAGEANTS/BODY PAINTING/FUN-DAY WATER-SPORTS. MEN/LADIES ALL AGES! COLORLOG \$3/SAMPLER \$20. GENESIS, BOX 5653, SANTA MONICA, CA 90409.

LOUDSPEAKERS

**SPEAKERS
MANUFACTURER—DIRECT**

Ohm
•Service, Upgrades & Trades
Free Catalog

"...reach-out-and-touch-it realism."

"NY Times" 800-783-1553. Ohm Acoustics Corporation, 241 Taafle Place, Brooklyn, NY 11205. FAX (718) 857-2472. OHMSPEAKER@AOL.COM

FOR SALE

WHOLESALE CONNECTION

To Order Call 1-800-226-2800



Camcorders	VCR	Receivers	Home Speakers
JVC	JVC	JVC	BOSE
GRS29 ..Call GRAX700 ..Call	HR57100 ..Call HRVP624 ..Call	RX517 ..Call RX8SD ..Call	AM3 II ..Call 901 ..Call
GRAX900 ..Call GRAX200 ..Call	HR55100 ..Call HRJ620 ..Call	RX717 ..Call RX9SD ..Call	AM5 II ..Call 701 ..Call
GRAX800 ..Call GRAX350 ..Call	HRVP720 ..Call HRVP7422 ..Call	RX817 ..Call RX10SD ..Call	AM7 II ..Call 501 ..Call
CANON	HRVP628 ..Call HRJ420 ..Call	TECHNICS	LS12 ..Call 301 ..Call
ES2000 ..Call	PANASONIC	SAGX490 ..Call SAGX790 ..Call	100BK ..Call 151BK ..Call
SHARP	PVS4580 ..Call PV4561 ..Call	SAGX690 ..Call SATX1010 ..Call	INFINITY
VL37 ..Call	PVS4566 ..Call PV4551 ..Call	PIONEER	RS225 ..Call SM115 ..Call
VL47 ..Call	PV4562 ..Call PV4501 ..Call	VSX454 ..Call VSXD704 ..Call	RS325 ..Call SM125 ..Call
VLH450 ..Call	RCA	VSX504 ..Call VSXD903 ..Call	RS425 ..Call SM105 ..Call
PANASONIC	VR678 ..Call ..Call	VSX604 ..Call VSXD3S ..Call	RS525 ..Call SM155 ..Call
PVQ505 ..Call PVQ305 ..Call	VR617 ..Call ..Call	KENWOOD	RS625 ..Call SM85 ..Call
PVQ705 ..Call PV950 ..Call	VR513 ..Call ..Call	KRV6070 ..Call KRV8070 ..Call	VIDEO1 ..Call SM65 ..Call
PVQ405 ..Call	TOSHIBA	KRV7070 ..Call KR1000 ..Call	PINNACLE
CALL FOR OTHER 8mm BRANDS	M781 ..Call ..Call	AVR30 ..Call AVR20 ..Call	AC500 ..Call AC650 ..Call
Video Mixers	M751 ..Call ..Call	AVR25 ..Call FL400 ..Call	AC600 ..Call AC800 ..Call
VIDEONICS MX1 ..Call	M471 ..Call ..Call	CALL FOR OTHER BRANDS	BIC
VIDEONICS TM2000 ..Call	Laser Discs	CD Players	V52CLR ..Call V82SI ..Call
VIDEONICS TU1 ..Call	PIONEER	JVC	V52SI ..Call ADATTO ..Call
RCA	CLDD504 ..Call CLDD704 ..Call	XLFD215 ..Call XLM5SD ..Call	Powered Subwoofers
Available	CLDD604 ..Call CLDS104 ..Call	XLMA417 ..Call XLMC301 ..Call	INFINITY ..Call SERVOSUB ..Call
DIGITAL SATELLITE SYSTEM	Portable CD Players	TECHNICS	INFINITY ..Call BU1 ..Call
DAT RECORDER	SONY	SLPD787 ..Call SLPD987 ..Call	MTX ..Call PSW101 ..Call
Portable Home ..Call	D242CK ..Call D842K ..Call	SLPD887 ..Call SLPD1010 ..Call	BIC ..Call V12SYSTEM ..Call
MINI DISC RECORDER	D245 ..Call D844K ..Call	KENWOOD	AIWA ..Call TSWS ..Call
Portable Home ..Call	D421 ..Call D848K ..Call	DPR4070 ..Call DPR6070 ..Call	KENWOOD ..Call SW300 ..Call
Call For Brands & Model Not Listed	KENWOOD	DPR5070 ..Call DPJ1070 ..Call	Mini Systems
24 HR. FAX (718) 997-6652	DPC341 ..Call DPC651 ..Call	PDM423 ..Call PDF1004 ..Call	MXC220 ..Call IVC ..Call
HRS. MON-SAT. 9 A.M.-6 P.M. Est. Prices subject to change. Prices exclude shipping & handling. Not responsible for typographical errors. MasterCard, Visa, American Express and C.O.D. accepted. Products come with W.C. Warranty. We ship UPS & FEDEX.	DPC451 ..Call DPC951 ..Call	PDM703 ..Call DPF904 ..Call	MXC330 ..Call MXC770 ..Call
Wholesale Connection 63-48 108th St. Forest Hills, NY 11375	CALL FOR OTHER BRANDS	CALL FOR OTHER BRANDS	MXC350 ..Call UXC7 ..Call
	P.O.'s Welcome		AIWA
			NSXV10 ..Call NSXV90 ..Call
			NSXV20 ..Call NSXV99 ..Call
			NSXV50 ..Call NSXV150 ..Call
			NSXV70 ..Call NSXV858 ..Call
			KENWOOD
			UD403 ..Call UD753 ..Call
			UD553 ..Call UD952 ..Call

BLANK TAPES

1-800-TAPE WORLD or 1-800-245-6000					
We'll beat any price! 5.95 SHIPPING • FREE CAT.					
SONY	MAXELL	TDK	DAI	DAI	DAI
DAT-120	5.99	XLI-90	1.69	D-90	7.9
DAT-60	4.99	XLI-50	1.99	D-90	1.59
DAT-124 pro	9.99	I 120 HGX	2.49	SVHS-T120	6.49
I-120V	1.79	ST 120	6.99	SVHS-T160	8.99
U7508THG	3.99	H18 120	5.99	SVHS-T160	8.99
CDR-74	7.49	DAI-124 pro	9.99	SVHS-T160	8.99
MDW-74	9.99	XLI 30 pro	9.99	SVHS-T160	8.99
		3MCDR-74	7.99	JVC T120	1.79

BUSINESS OPPORTUNITIES

EASY WORK! EXCELLENT PAY! Assemble Products at Home. Call Toll Free 1-800-467-5566 EXT. 11815

BOOKS & PUBLICATIONS

DENMARK, U.S.A. Nudism lifestyle: family recreation. Infopak \$3. Videos, magazines. Lifestyles-V, Box 661268, Los Angeles, CA 90066.

CABLE TV EQUIPMENT

Cable Descramblers

We'll beat anyone's price!

1 Year Warranty 100% Money Back Free Catalog

Filters * Converters * Accessories

ORION Electronics 1-800-379-3976

CABLE TV—New products designed and supported by the best in the business. External activators for Jerrald, Pioneer, Scientific Atlanta living or dead! Save big! Make lots of money! 1-800-375-7022.

CABLE TV CONVERTERS/DESCRAMBLERS/ACCESSORIES. All makes & models. Immediate shipping! VISA/MC/COD. Satisfaction guaranteed. Wing Wholesale Electronics, Minneapolis, MN 800-304-4408.

LINK YOURSELF TO THE FUTURE WITH OUR EXPERIENCE! CABLE TV CONVERTERS & DESCRAMBLERS. QUALITY, SERVICE & SATISFACTION GUARANTEED! VISA/MC/AMEX/C.O.D. ACCEPTED. QUANTITY DISCOUNTS. CABLE LINX, INC., MINNEAPOLIS, MN: 1-800-501-0095.

CABLE T.V. CONVERTERS & DESCRAMBLERS: Replacements for most models. 30 Day Trial—1 Year Warranty! Dealer Inquiries Invited. Visa/MC/Disc/Amex/COD FOR QUALITY, PRICE & SERVICE CALL: 1-800-259-1187. Eagle Electronics Inc., #1, 1301 Railhead Blvd., Naples, FL 33963. No Florida Sales.

REVOLUTIONARY TECHNOLOGY. Does all Boxes - For Free Catalog Please Call Mega Electronics 1-800/676-6342.

CABLE TV EQUIPMENT

CABLE TV CONVERTERS & DESCRAMBLERS. SAVE MONEY! CALL US LAST FOR THE BEST PRICES!! ALL BRANDS. 24 HOUR SHIPPING. VISA/MC/AMEX/C.O.D. QUANTITY DISCOUNTS. VIDEO CONNECTIONS INC. 1-800-677-0321.

SECRET CABLE DESCRAMBLERS! Build your own Descrambler for LESS than \$12.00 in SEVEN EASY STEPS! RADIO SHACK Parts List and FREE Descrambling Methods that COST NOTHING To Try. Included. Send \$10.00 to: INFORMATION FACTORY, P.O. Box 669, Seabrook, Texas 77586. For VISA/MC, C.O.D.'S, 1-713-922-3512 Any Time!

BEST DEALER PRICING!

30 DAY FREE TRIAL!

CABLE DIRECT

DESCRAMBLERS

CONVERTERS • FILTERS

COPY RENTAL TAPES WITH OUR VIDEO STABILIZERS

Now you can tune-in to your favorite cable TV programming and **SAVE \$100'S - EVEN \$1000'S** on premium CABLE TV EQUIPMENT. **FREE Cable TV Catalog.**

100% MONEY BACK GUARANTEE!

1 YEAR WARRANTY

MODERN ELECTRONICS

1-800-906-6664

2125 S. 156TH CIRCLE • OMAHA, NE 68130

CABLE TV

Converters Descramblers Accessories

- **BEST** Prices
- Quality merchandise by brand name manufacturers
- Excellent customer service representatives

• Save money by purchasing instead of renting

• **FREE 30 day trial period and 1 year warranty.**

Call for your free catalog **Dealer inquiries welcomed!**

MicroCom Industries

800/665-2002

MasterCard • VISA • AMX • COD

CABLE TV DESCRAMBLERS/CONVERTERS. Jerralds, Scientific Atlanta, Pioneers, Zeniths, Tocoms. Best Prices! Moneyback Guarantee! FREE CATALOG! ALLSTAR: 1-800-782-7214.

CABLE DESCRAMBLERS

No 800# ... No Catalog

Just LOW, LOW Prices!

Call the rest, then call us for the best price.

305-425-0751

NO FLORIDA SALES!

CABLE T.V. CONVERTERS & ACCESSORIES. Fair Prices, Quality Service, & 14 years Experience Gives Us The ADVANTAGE. CALL 1-800-952-3916 Visa/MC/Amex/Disc/COD. ADVANTAGE ELECTRONICS, INC., 1125 Riverwood Dr., Burnsville, MN 55337. MEMBER OF NCCA.

CABLE TV FILTERS
TO REMOVE INTERFERENCE
OR BLOCK UNWANTED CHANNELS

\$30 each DEALER PRICING AVAILABLE
30 DAY MONEY BACK VISA-MC-COD

Specify channel number - 2 thru 36 only

STAR CIRCUITS
1-800-535-STAR

CABLE TV TEST CHIPS for Jerrold, Tocom, Pioneer, Scientific Atlanta, etc... **QUICK INSTALLATION!** New Multi-Mode modules available. Prices from \$5 each. 1-800-786-9025.

CABLE TV DESCRAMBLERS

- Quantity Discounts • 24 Hour Shipping
- Save Money Don't Rent

NOBODY BEATS OUR PRICE

Call Us Last For Best Price

1-800-677-0321

Anyone implying theft of service will be denied service
VCI - NO FLORIDA SALES

CABLE TV EQUIPMENT & ACCESSORIES! Wholesalers Welcome! 30 Day Moneyback Guarantee! Free Catalog! Don't Delay, Call Today! **PERFORMANCE ELECTRONICS, INC.,** 1-800-815-1512.

CABLE HOTLINE
Cable TV Descramblers • Converters
All Major Brands • #1 In Customer Service • 30 Day Money Guarantee • 2 Year Warranty
Call For Price Quote. Please Have Make And Model Number Ready When You Call.

Frequent Buyer And Quantity Discounts

Absolutely The Lowest Prices!

1-800-203-7077

New Remote Control T-1 External Tester for all Jerrold and Pioneer Converters. Does baseband and multimode. Dealers Wanted. One Year Guarantee. (516)541-3788.

PLAZAC SALES INC

Cable TV Converters - Panasonic and more! Don't Rent - Buy! Professional Service, Good Prices. One Year Warranty - Ship C.O.D. Anyone implying theft of service will be declined sales. Sorry, no New Jersey sales. Dealers Wanted.

PLAZAC SALES INC.

1-800-A-WIRE-4-U (1-800-294-7348)

SCRAMBLING NEWS. Turn-ons, bypasses, technical information. Cable and Satellite. Voice/FAX 716-874-2088. BBS 716-871-1915. 3494 Delaware Ave., #123, Buffalo, N.Y. 14217. dlawson@Localnet.com.



**NU-TEK
ELECTRONICS**
Leading the way to excellence



Cable TV Converters
and
DESCRAMBLERS

NU-TEK ELECTRONICS

We offer all major brands
of cable TV equipment.



STARGATE SST

Features include:

- Upgradeable card slot
- Volume control
- Parental control
- Audio/Video ports
- Sleep timer

Nu-Tek Electronics is now on the Internet!

Check us out at <http://www.register.com/nutek>
or you can call us for your FREE catalog.

1-800-228-7404CABLE T.V.
CONVERTERS & DESCRAMBLERS

**TKA
ELECTRONICS**
7914 W. Dodge Rd. #334
Omaha, NE 68114

★ 13 MONTH WARRANTY IN WRITING ★
★ FRIENDLY SERVICE ★ 30 DAY TRIAL PERIOD ★

FOR A FREE CATALOG OR TO PLACE YOUR ORDER CALL:

1-800-729-1776CABLE TV
DESCRAMBLERS

EVERYTHING YOU WANT, AND MORE!!!



**FREE
CALLING CARD
WITH
EVERY ORDER!**

DON'T SETTLE FOR LESS, CALL US FOR:

LOW PRICES ON BRAND NAME EQUIPMENT
FRIENDLY, PROFESSIONAL SERVICE
BRAND NEW, STATE-OF-THE-ART CATV BOXES
30 DAY MONEY BACK GUARANTEE
1 YEAR WARRANTY



**BIG
QUANTITY
DISCOUNTS!**

**1-800-699-4258**

ULTIMATE MAIL ORDER SERVICES, INC.
6325-9 FALLS OF THE NEUSE
RALEIGH, NC 27615

2R/5V/TCF 1 Wire (3W. compatible) \$14.00 STCM-7.3 Wire for all 7xxxBBP's, PD's, VPD's \$8.00 Min. 10 pieces each type. Call 1-800-831-2050.

! CABLE T.V.
EQUIPMENT!

All makes and models! Low Prices. Quantity discounts. **FREE CATALOG.** C.O.D orders accepted. No Illinois orders.

L&L ELECTRONICS INC.
1430 Miner Street, Suite 522
Des Plaines, IL 60016
We Accept MasterCard and Visa
1-800-542-8190

YEARS OF CUSTOMER SATISFACTION!

WE'LL BEAT ANY PRICE ON CABLE CONVERTERS & DESCRAMBLERS. SAVE ON EQUIPMENT, CABLE RENTAL FEES, & CONNECTION CHARGES. STEALTHS, M-80, PIONEER, ETC. DEALER INQUIRES WELCOME. VISA/MasterCard/Discover/C.O.D. QUALITY ENTERTAINMENT 1(800)-72-BOXES.

**COPY
RENTAL
TAPES**
WITH OUR
VIDEO STABILIZERS



The clearest picture possible playing back movies. **GUARANTEED** to eliminate copy protection.

- No Rolls/Jitters/Flickers/Fading
- Works on all TV's
- VCR's Beta & Cable
- Gold Video Connectors & Cables Included
- 1 Year Warranty
- Money Back Guarantee

VISION ELECTRONICS
1-800-562-2252
2125 S. 156TH CIRCLE • OMAHA, NE 68130

CABLE TV EQUIPMENT

DTA
TECHNOLOGIES
CONVERTERS
&
DESCRAMBLERS
CABLE T.V.
TEST CHIPS
Z-boards
TO ORDER CALL 1-800-700-3947

TRANSFERRING/DUPPLICATION

FOREIGN DIGITAL CONVERSIONS from \$19.95 NTSC/PAL/SECAM. VHS, S-VHS, Beta, Hi8. 3D Research, 20120 Route 19, Suite 105-274, Cranberry Township, PA 16066 TOLL FREE 1-800-735-8582.

STOP JAMMING ME

If you rent video tapes, they're jamming you too!!

RX II \$69.95
1-800-824-7077
RP ELECTRONICS
OR SEND CHECK/MONEY ORDER TO
RP ELECTRONICS 360 GRAND AVE.
STE. 295-23 OAKLAND, CA 94610

Guaranteed 1 year - 30 Day Money Back
Eliminates all copy protection
• Works on all TV's VCR's, Beta
• Completely Automatic no
adjustments
• Digital state of the art

WHEN PLAYING RELATED VIDEOS, THESE ANNOYING
FLASHES, STREAKS AND JITTERS ARE CAUSED BY
IMPROPER COPY PROTECTION JAMMING.
THE RXII COMPLETELY ELIMINATES HANGOVERS!
ALL CURRENT COPY PROTECTION AND JAMMING SIGNALS

DUPPLICATIONS/CONVERSIONS

If you need Video Tapes Duplicated or Foreign Tapes Converted, call High-Tech Productions 1-800-662-8336.

HOME THEATER

ALL MAJOR BRAND LCD PROJECTORS - LOWEST PRICES WORLD-WIDE!!! ULTRA HIGH-GAIN PROJECTION SCREENS (GAIN: 13.2)!!! "DEPIXELATION" OPTICS: SEAMLESS, HIGH-RESOLUTION PICTURES FROM LCD PROJECTORS!!! **POLI-VISION**, 187-V CYPRESS, THROOP, PA 18512-1429 (PH: 717-489-3292).

LASER DISCS

ADULT LASERDISCS. Hundreds of titles! Color Catalog: \$4.95 (refundable). AMERICA PICTURES, Dept. V, 309 Judah, San Francisco, CA 94122. (415) 566-1212; Visa/MC.

• **12% OFF LASERDISCS • THE LASER IMAGE.** Since 1980, 5000 Discs • FREE Demonstration Disc with \$100 purchase **sb PH:** (970)586-8360 • FAX: (970)586-2728.

01 LASER VIDEO

20% OFF
ON ALL LASERDISCS!!!

Visa, MasterCard, AMEX,
Discover, Checks, & COD's.

FREE UPS 2nd Day Air
With Purchase Of
Two Or More Discs.

Fastest Availability On New & Backorder Titles!!

Mon-Fri 9-9 / Sat 11-9 / Sun 11-6

Phone: (714) 848-4034 Fax: (714) 841-3304

8780 Warner Ave.#14, Fountain Valley, CA 92708

LASER DISCS UP TO 60% OFF!! FREE CATALOG. LASER EXCHANGE, SUITE #275, 444B BROADWAY, SAUGUS, MA 01905-1995. (617)231-8010.

1000'S OF NEW & USED LASERDISCS!

Call our Computer Bulletin Board with your modem for daily updates!! **617 894-5990**

Subscribe now to our legendary
LaserFlash.

Since 1984, the most consistent and informative new release publication in the industry. Get 11 jam-packed issues, plus our 1995 yearbook, for \$29.95.

(Yearbook alone: \$14.95; Subscription alone \$24.95)
Call or write for free sample issue!

CASH FOR YOUR LCD COLLECTION!!
NO COLLECTION TOO LARGE OR
TOO SMALL FOR US!! 1 DISC OR 10,000!

We ship only to N. American & APO/FPO addresses

Sight & Sound
Mass residents add
5% Sales Tax
617 894-8633

27 Jones Rd., Waltham, MA 02154

SATELLITE TV

SAVE 40% - 60% **SATELLITE TV** FREE 68 pg Catalog

NAME BRAND EQUIPMENT & ACCESSORIES
Systems • Upgrades • IRDs • Movers • Feeds
LNBS • 3' to 24' Dishes and much more...
100% Satisfaction Guaranteed!

1-800-334-6455
218-739-5231 Int'l
Skyvision®

1028 FRONTIER DRIVE FERGUS FALLS, MN 56537
INSTALL OR UPDATE YOURSELF!

ACCESSORIES

SINGERS! REMOVE VOCALS
Unlimited, Low Cost, Instantly Available
Background Music from Original Standard
Recordings! Does everything Karaoke
does... Better and gives you the
Thompson Vocal Eliminator™
Free Brochure & Demo Tape.
LT Sound Dept VBG
7988 LT Parkway
Lithonia, GA 30058
24 Hour Demo/Info Request Line (404)482-2485 - Ext 99
When You Want Something Better Than Karaoke!

ATTENTION ADVERTISERS

Reach proven
mail order buyers!

They turn to us when they are
looking for purchasing information
and advise. Advertise your
products and services in a low-
cost environment that sells.

Millions of your prime prospects
can be found in the industry
leading titles of

**Hachette Filipacchi
Magazines, Inc.**

To place a classified ad, simply
call us **Toll-Free** and reserve
your space today!

1-800-445-6066

(9am- 5pm EST)

or

FAX: 212-767-5624

Copies of articles from this
publication are now available from
UMI Article Clearinghouse.

U·M·I

800-521-0600 toll-free
313-761-4700 collect from Alaska and Michigan
800-343-5299 toll-free from Canada

INDEX TO ADVERTISERS

READER SERVICE NO.	ADVERTISER	PAGE NUMBER
18	a/d/s/	96
33	Abe's of Maine	125
1	Adcom	14-15
	AudioQuest	C3
55	Azden	91
	Bacardi	4
	Battery Tech	59
54	Beach Camera	127
	Boston Acoustics	64
	Berger Bros.	110
	Bose	19
	Boston Acoustics	64
62	Brookline Technologies	63
48	Bryston Vermont	54
15	Cable Warehouse	132
29	Cambridge SoundWorks	8,18-19
47	Camera World	134
93	Canton	86
20	Coast to Coast	123
21	Colonel Video & Audio	120
	Columbia House	21
85	ComputAbility	111
30	DataVision	116-117
24	Definitive Technology	C4
	Definitive Technology	101
	Eagle Talon TSi AWD	66-67
	Eagle Vision TSi	74-75
26	Electronic Mailbox	114-115
28	Electronic Mailbox	134
	Electronic Wholesalers	126
34	Executive Photo & Electronics	135
35	Family Photo & Video	121
	Haven Industries	110
42	Huppins (One Call)	112
	IBM	70-71
69	Imaging Science Foundation	109
3	JVC	82
37	Ken Crane's Laserdisc	85
	Laserdisc Enterprises	61
73	Laserdisc Fan Club	89
82	Legacy Audio	104
7	Marine Park	113
17	MD Electronics	130
31	Mirage	81
43	Mondial	85
13	New West Electronics	136
63	NuReality	57
72	Onkyo	45
46	Paradigm	35
	Pioneer	38
14	Planet Electronics	133
50	Polk Audio	24
51	Powervideo	128-129
90	ProScan	C2-1
49	Rock Solid of America	43
74	Samsung	78-79
	6th Ave Electronics City	118-119
	Smile Photo & Video	131
39	Smile Photo & Video	130
4	Sound City	122
	Toshiba Seminars	101
65	Toshiba	10
76	USA Direct	124
	USSB	26
	VideoGuide	7
38	Videonics	102
	XLO	103

Now is the winter of our
tape and disc content

SNOWBOUND

LOOK OUT YOUR WINDOW. WHAT DO YOU SEE? IN ALL LIKELIHOOD, the answer is "darkness." It's winter, so it's dark much of the time. Some people find this depressing. Me, I love winter. I feel guilty watching TV when the sun is out and the weather is nice. But in the wintertime, I see no reason not to spend the evening (or the entire weekend) warming my toes over a nice toasty VCR. And as the cold weather slows down your metabolism, your patience increases. This makes winter the perfect time to catch up with those long, demanding classics you've been meaning to rent for years, though somehow you always end up bringing home a Bill Murray flick instead.

If you really want to go for an endurance test (or just want something to brag to your friends about), make a weekend out of R.W. Fassbinder's 15-hour-plus *Berlin Alexanderplatz* (1980), the Japanese anti-war epic *The Human Condition* (1958-61; 9 hours 30 min.), Richard Burton as *Wagner* (1983; 9 hours), or the 8-hour-plus 1968 Russian adaptation of *War and Peace* (which puts Hollywood's hasty 3-hour 30-minute version to shame). Snowbound vacationers and accident-prone skiers might also look for the adaptation of Charles Dickens' *Little Dorrit* (1988; 6 hours), the complete version of Bernardo Bertolucci's *1900* (1977; 5 hours 41 min.), or Peter Brooks' *The Mahabharata* (1991; 5 hours 18 min.).

Unfortunately (or fortunately, depending on your perspective), the longest movies ever made aren't available on video. The List of Honor includes *Heimat* (1984; 15 hours 40 min.), its sequel *Heimat II* (1993; 24 hours), *Andy Warhol's ***** (1967; 24 hours), and the record holder, a British underground movie from 1970 called *The Longest Most Meaningless Movie in the World*. (Not surprisingly, this 48-hour extravaganza was only shown once.)

A more reasonable goal is to cocoon with a big, demanding, satisfying movie you can get through in one long winter's evening. Nothing on the following list runs less than 2 hours 30 minutes (though some are available in alternate shorter versions, which aren't recommended). And all of them really should be watched in a single sitting.

◆ *Anatomy of a Murder* (1959; 2 hours 40 min.). Courtroom dramas benefit from deliberate pacing, and this is one of the

best. Otto Preminger directs fluidly and with unflagging energy despite many long scenes that are confined to the single courtroom set.

◆ *Dances With Wolves* (1990; 3 hours 52 min.). Unlike most of the movies on this list, you've probably seen this mega-Oscar winner already. Or have you? After *DWW*'s initial video release, it was reissued with almost an hour's worth of extra footage, bringing it to a grand total of 232 minutes. Many video stores carry both versions, so make sure you pick up the deluxe version—it's got more wolves and more dancing.

◆ *La Dolce Vita* (1960; 2 hours 55 min.). Federico Fellini's portrait of his native Rome as a glamorous inferno. More overstuffed Fellini: *8 1/2*, *Juliet of the Spirits*, *Fellini Satyricon*.

◆ *Fanny and Alexander* (1983; 3 hours 17 min.). Swedish

nights tend to be long, which may be why Ingmar Bergman produced so many fine, fat films in his later years. This joyous and magical movie, based on Bergman's childhood memories, concentrates on the youngest members of a theatrical family.

◆ *Fitzcarraldo* (1982; 2 hours 37 min.). Werner Herzog's sprawling epic is based on the true story of a mad 19th-century Irishman (Klaus Kinski) who tried to build an opera house in the South American jungle. You'll never forget the grand and insane



climax: a ship being pulled over a mountain.

◆ *Jean de Florette/Manon of the Spring* (1987; 3 hours 55 min.). This classically styled, gorgeously photographed adaptation of Marcel Pagnol's pastoral novel, *Manon Lescaut*, was released in two parts, but it's really one film and should be seen that way for maximum impact. If you don't shed a tear in the last half-hour, call an undertaker—you're dead.

◆ *Once Upon a Time in America* (1984; 3 hours 45 min.). Sergio Leone's operatic gangster saga has been called the Jewish *Godfather*, but it owes no debt to Francis Ford Coppola—its rich, introspective tone is uniquely Leone's.

◆ *The Seven Samurai* (1954; 3 hours 28 min.). In 16th-century Japan, six wandering samurai help a community of farmers fight off predatory bandits. Energetic performances and director Akira Kurosawa's elegant symbolism make for a spellbinding adventure filled with moments of furious violence and subtle beauty.

—M. Faust



Frame Of Reference:

This picture tells you a lot about AudioQuest cables, but without a frame of reference it doesn't tell you whether the boxes (or the viewer) are rising, falling or just floating. Many inferior cables are popular, even though comparison against a proper reference immediately reveals serious flaws. Because AudioQuest cables are referenced against *no* cable (the bypass test), we understand each cable's strengths and weaknesses. We know that AudioQuest cables will give you a performance closer to the original, whether on a mini-system or on a "big rig."

audioquest®

Definitive's New BP2000 Brings You the Ultimate Listening Experience!

"The first speaker I have been able to audition in my own familiar surroundings that has given me that special thrill that usually costs ten or more times its price to obtain."

—Julian Hirsch, *Stereo Review*

"Frankly, if circumstances allowed, I would choose these speakers for myself."

—Julian Hirsch, *Stereo Review*

Speaker of the Decade

Now, with the BP2000, Definitive literally reinvents the loudspeaker. We have combined a six-driver dual D'Appolito bipolar array with a built-in (side-firing) 300-watt powered 15" subwoofer. (Yes, a complete powered subwoofer built into each speaker!) The result is extraordinary sonic performance beyond anything you've ever heard.

Both music and movies are reproduced with unequalled purity, transparency and lifelike realism. And the astounding high resolution imaging and awesome bass impact totally envelop you in sonic ecstasy. They are an amazing achievement!



Definitive's complete AC-3 ready BP2000 Home Theater System is the perfect choice for ultimate music and movie performance.

The Ultimate Home Theater

In addition to being an audiophile's dream, the BP2000s are also the main speakers in Definitive's AC-3 ready Ultimate Home Theater System. This astonishing system is absolutely the finest sounding available. It recreates a "you are there" spatial reality that actually puts you into the soundspace of the original cinematic action.

The complete system combines the BP2000s (\$1499 ea.) with a C/L/R 2000 center (\$650 ea.) and BPX bipolar surrounds (from \$399 ea.). Of course, dual 15" powered subwoofers are already built into the sleek BP2000 towers. Truly the ultimate listening experience! Visit your Definitive dealer today.

Definitive Technology®
The Leader in High-Performance Loudspeakers™

11105 Valley Hts. Dr. • Baltimore, MD 21117 • (410) 363-7148